

'Mid Soap and Perfume.

On April 17 a large number of the members of the Chemists' Managers' and Assistants' Society visited the works of the Crown Perfumery Company, at Sidney Road, Homerton. They were received by Mr. Hathaway (the Secretary), Messrs. Wilkinson and Mawdesley, and other heads of the travelling and manufacturing staffs, and were shown the different stages in the process of the manufacture of soaps and perfumery, from the crude material to the finished product. The boiling and milling of the soaps were fully explained, several members recognising their own orders in course of execution. The methods employed in perfuming and medicating soaps were shown, and the stamping, finishing, wrapping, and boxing of the finished cakes were exhibited in full detail. A special interest was displayed in the preparation of the chemist's "own-name" soap, surprise being expressed at the evidence of such good value for the small cost. In the perfumery departments the well equipped laboratories, where testing and blending are carried out by trained chemists, excited keen regard. The box-making machinery and the admirable packing arrangements were appreciatively inspected, and Mr. Pickering and Mr. Cullwick (the President and Treasurer respectively) expressed the thanks of the visitors to the representatives of the Company for their patient and instructive courtesy.

Midland Notes

The project to rebuild the technical school at Walsall has been deferred in view of the probable change of rule in the educational machinery.

Rumour hath it that a dissolution of partnership will shortly be announced in a well-known Midland firm of manufacturing chemists and druggists.

Lewis's (Limited), of Bull Street, Birmingham, have a large display of enemas, medicine-requisites, and surgical appliances, all at very cheap rates in their windows.

Young pharmaceutical botanists should take a trip to Burnt Green and walk in the direction of Hopwood, where they will be charmed by the great variety of botanical specimens of immediate and rare interest.

Diphtheria is assuming alarming proportions in Birmingham, and the principal schools refuse the return of pupils who have suffered from diphtheria unless they have a certificate stating that a bacteriological examination shows that they are absolutely free from the disease.

The Birmingham Consultative Institute, over which Mr. Arthur Chamberlain and the General Medical Council waged a wordy warfare, is apparently dead. At least, the professional chambers formerly occupied by Dr. Irvine at the Institute in Newhall Street are advertised to be let.

Mr. A. Southall (of Messrs. Southall Brothers & Barclay, Limited, Birmingham) and Mrs. Southall are taking a holiday in Italy for the benefit of their health. In the absence of both Mr. Southall and Mr. Thomas Barclay the large ship is being steered by the junior directors.

Mr. Sidney Fisher, formerly chemist, Six Ways, Aston, now dentist of same district, and many years Chairman of Aston Local Board, has resigned his seat on the Birmingham Drainage Board as one of the Aston representatives, owing to increasing demands of the work upon his time. The Chairman remarked that the Board would be sorry to lose Mr. Fisher, who had been a diligent member.

A council-meeting of the local Association was held on April 17, when arrangements were made for the annual meeting and dinner. A Federation Circular was under discussion, but what transpired has not become known. It is highly probable that such a matter will be deferred until the new Council is elected. Mr. John Barclay retires from the Presidency, and it is understood that either Mr. Gerrard or Mr. Brunt will be elected in his stead.

A well-known local pharmacist suggests a good method of bringing out the social qualities of chemists and druggists. He reminds us that just now the plum-blossom in the Vale of Evesham is at its full and suggests a trip on Wednesday afternoon, and tea and boating on the river with, perhaps,

Mr. Sadler and his co-pharmacists at Evesham acting as guides. It is an open secret that herb-growing is much fostered in this district, and business could be combined with pleasure.

Fire.

On April 17 a fire broke out at the works of the Paget Prize Dry Plate Company, in Callow Lane, Watford. Only a few barrels of chemicals were saved, and damage estimated at about 20,000*l.* was done.

Cricket.

Boot's Cricket Club, Sheffield, v. Albert Cricket Club, Sheffield.—This match was played at Wadsley on April 17, resulting in a very easy win for the Boot's team by seven wickets.

Contracts.

Mr. Egbert Neville, pharmaceutical chemist, West Street, Fareham, has been appointed chemist to the Fareham Urban District Council.

At a meeting of the London County Council on April 22, the tender of Messrs. C. J. Hewlett & Son, of Charlotte Street, E.C., was accepted for the supply of drugs, &c., to the Farmfield Inebriate Reformatory.

The Orsett Board of Guardians on April 17 considered a communication from the Local Government Board, advising that in future the Guardians should provide expensive drugs and medicines instead of the medical officers. One member said that such a change would make a great difference in the salaries of the medical officers, and before coming to any decision in the matter the Guardians decided to seek further information from the superior Board.

At a meeting of the Barking Urban District Council on April 15, the General Purposes Committee recommended that the tender of Messrs. S. Cooper (Limited), Whitechapel, should be accepted for the supply of drugs to the hospital. Mr. Hambleton proposed that the recommendation should be deleted, and that the tender of Messrs. C. J. Hewlett & Son, of 40 Charlotte Street, E.C., which was originally recommended for acceptance, should be accepted. He pointed out that Messrs. Hewlett & Son agreed to allow 40 per cent. off list-prices, whereas Cooper (Limited) only offered 2½ per cent. Mr. Smith said 30*l.* a year was as much as the public health department spent on drugs. He believed that the last monthly cheque amounted to about 25*s.*, and he thought they ought to give that amount to a local chemist, and not go so far as Whitechapel. After further discussion, the committee's recommendation was carried.

A Matter of Principle.

At a meeting of the Holborn Borough Council on April 23, the Public Health Committee recommended, in reference to the failure of a prosecution against a chemist for the sale of methylated soap-liniment (see *C. & D.*, April 5, page 536), that the course adopted by the Town Clerk (Mr. H. C. Jones) in applying to the Magistrate to state a case be approved, and that he be authorised to take the necessary steps with a view of securing the decision of the Divisional Court of the King's Bench upon the subject. Professor W. R. Smith, J.P., who moved the adoption of the recommendation of the committee, said that there was a great principle involved in this case. Alderman G. P. Willoughby thought it would not be wise to add to their expenditure in a matter about which the ratepayers cared nothing. There was no duty cast upon them to further fight the case. Councillor E. Angel considered that a great responsibility was thrown on the Council in the case. A prescription, he said, might be a matter of life or death to a patient, and it was their duty, in the interests of their constituents, to see that the prescriptions ordered by medical men were properly compounded. Councillor the Rev. E. Canney said they would be throwing away their money by fighting the case. If it were a question of the compounding of a medicine it would be a different thing, but it was only a matter of a little salve. (Laughter.) Councillor J. S. Turner observed that it was a question which affected the whole of the empire. The decision of the Magistrate had been quoted as a precedent in every police court in London. The recommendation of the committee was adopted.

Vaccination Officers' Fees.

At the weekly meeting of the City of London Guardians on Tuesday, the following reply from the Assistant-Secretary of the Local Government Board was read:—

In reply to your letter, I am to state that a factory or other similar place at which a person is employed, but does not reside, cannot be regarded as the person's home within the meaning of the Vaccination Order, 1898, and a public vaccinator would not be entitled to the ordinary domiciliary fee in respect of any vaccination or revaccination properly performed by him at such an establishment on such an employé. At the same time, the Board have, upon the application of the Guardians of some other Unions, sanctioned, in order to avoid difficulty at audit, an arrangement for the payment, in the cases to which you refer, of a fee to the public vaccinator equal to that provided in his contract for vaccinations or revaccinations at a place other than the person's home.

The Committee recommended that application should be made to the Board to sanction a special fee of 2s. 6d. per case, and this was agreed to.

Marking-ink Internally.

At a meeting of the Bromsgrove, Droitwich, and Redditch Infectious Hospital Committee on April 15, it was stated that one of the nursing staff at the Hill Top Hospital had administered marking-ink in place of beef-juice to two of the inmates, who, however, recovered from the effects produced. It transpired that the marking-ink had been put into an empty meat-juice bottle by one of the nurses, the bottle afterwards having been placed in a cupboard by another nurse. A committee was appointed to investigate the matter.

An Unusual Death.

At the Fulham Coroner's Court, on April 21, an inquest was held on the body of John William Craske (49), a waiter at the house of the Pharmaceutical Society, 17 Bloomsbury Square, W.C. On April 19 Craske complained to William James Hobbs, the Pharmaceutical Society's messenger, that he felt queer, and he was given some quinine and some sweet oil was put in his ear to relieve the pain at the back of his head. Afterwards no fewer than six doctors saw him, but were unable to diagnose his malady, and as he became delirious he was removed to the lunatic ward at the Fulham Infirmary, where he died in delirium. Dr. Parsons, who had made an autopsy, said death was due to cerebro-spinal meningitis, which was exceedingly hard to diagnose.

A Surgeon's Death.

On April 18, at an inquest held at Woolwich on the body of Dr. Ingledew, a surgeon, who practised at Plumstead, it was stated that deceased had suffered from some affection of the legs, and the son of deceased said he believed his father took morphia daily. He used to dissolve it in water, and took various doses in an ordinary drinking-glass. On the day of his death he heard his father call to him from the dining-room. He appeared to be ill and died shortly afterwards. The evidence of Patrick Kavanagh, assistant to Mr. A. Goldthorpe, chemist, 70 Herbert Road, Plumstead, was to the effect that an order for 3j. of morph. hydrochlor. was presented to him from Dr. Ingledew. The manager said Dr. Ingledew was in the habit of getting morphia, so witness gave the messenger the requisite quantity in a packet. He was not a qualified chemist, but the manager was. In answer to the Coroner he said he was well acquainted with the appearance of morphia and strychnine, and in reply to a juror said he would not have served it if he had not been satisfied that it was for Dr. Ingledew. Cross-examined by Mr. F. W. Beck (who watched the case on behalf of Mr. Goldthorpe), he said there was one poison-cupboard in the shop in which all poisons were kept. The bottle morph. hydrochlor. produced (a wide-mouthed quinine-tinted bottle) was the one from which he served the messenger. He had not taken anything out of the strychnine-bottle, which was also produced (a dark blue fluted bottle). They were kept on separate shelves. The sale was not entered in the poisons-book, because it was regarded as a wholesale transaction. The manager saw the order and the lad, and it was on his instruction that he was served. An insurance agent named George Thomas, who had known Dr. Ingledew for a long time, said to his knowledge the doctor had taken morphia,

sometimes daily, for over two years, in doses varying from 10 to 20 grains. He used to dissolve a drachm of morphia in 12 ounces of water. On the day of the death he saw the doctor sitting in his arm-chair with one hand on his chest. The doctor said, "That man has sent me strychnine." The bottle which usually contained the solution of morphia was close by, and there appeared to be a dose out of it. Witness did not see the doctor make up what was in the bottle, nor did he see him take a dose. He ran to Mr. Goldthorpe's for some more morphia. He emptied out what was in the bottle into a basin, and used the bottle for dissolving the morphia he had fetched. Dr. Fuller was then present, and under his instructions he decanted what he had poured into the basin into another bottle, which Dr. Fuller took charge of. Dr. Fuller said there was nothing in deceased's appearance to indicate the cause of death, and the *post-mortem* examination disclosed no evidence of strychnine. The heart was very weak, and if deceased had been under the impression that he had taken strychnine instead of morphia the shock might have caused his death. The inquiry was adjourned in order that an analysis of the viscera and the contents of the basin might be made.

Marigold for Pneumonia.

At an inquest held at Wakefield on April 21, on the body of Emily Frances Haigh (22), daughter of Edmund Haigh, medical herbalist, Westgate Common, Wakefield, it was stated that deceased had contracted a chill, and her father ordered her a foot-bath, and gave her "a wineglassful of marigold-tea" three or four times a day. She got worse, and died before a doctor could be called in. Dr. Wood gave it as his opinion that death had occurred primarily through disease of the heart, and secondly through pneumonia. He could not say the girl's life could have been saved though he had been called in earlier. The jury returned a verdict of death from natural causes.

The Week's Poisonings.

Since our last report eight fatalities from poisoning are recorded, six being caused by scheduled poisons. These include strychnine (in the shape of vermin-killer), chlorodyne, carbolic acid (two), laudanum, and oxalic acid. The unscheduled poisons were salts of lemon (taken by a Bristol woman), and *Arum maculatum*, the flowers of which a Bardfield labourer's child ate with fatal results. Two young women have attempted to commit suicide by laudanum and carbolic acid respectively.—At the South Devon and East Cornwall Hospital, Plymouth, last week, a man named Smith called to have a wound on his hand dressed. By some means he secured possession of several bottles of poison, and while the nurse's back was turned he drank a large quantity of the contents, expiring in a short time.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Business Change.

Mr. Faussett Maxwell, L.P.S.I., late of Messrs. Graham & Co.'s State Pharmacy, Dublin, has started business on his own account at Dalkey.

An Explanation.

At the meeting of the Lurgan Board of Guardians on April 17, an explanation was made as to the large number of extras obtained from the local chemist. Dr. Darling said he never obtained any goods except on a regular contract, and one of the Guardians spoke to the same effect.

From Limited to Unlimited.

Mr. J. J. Cole, having been successful at the Licence examination of the Pharmaceutical Society of Ireland, has voluntarily wound up the limited company which he formed some two years ago. This seems rather a victory for individual management *versus* company pharmacy.

Examiner Resigning.

Mr. Forbes Watson, who has acted as an examiner in chemistry at the Licence examinations of the Pharmaceutical Society of Ireland for the past four years, intends relinquishing the position after the next examination, which will be held in July. Mr. Watson, who is analytical chemist to Messrs. Guinness & Co. (Limited), requires his whole time for the duties of that position.

Begun Well.

At the recent examinations of the Royal College of Surgeons, Ireland, Mr. J. B. Kelly (third son of Mr. P. Kelly, Member of Council of the Pharmaceutical Society of Ireland), secured a prize of 2*l.* 2*s.*, and silver medal in practical anatomy, and third prize in descriptive anatomy in the First Professional course. Mr. Kelly is only 18 years of age, but has evidently started on the right path, and has many additional honours at his command.

Unqualified Dispensers.

The *Freeman's Journal* of April 17 called attention to the proceedings of the last Council-meeting which appeared in the *C. & D.*, April 12, in which the important matter of unqualified dispensers was considered. Reference was particularly directed to the action of the South Dublin Guardians in marking the circular sent by the Society as read, and it is remarked that it is the bounden duty of every Hospital Board and of every Poor-law Board to see that the L.G.B. regulations—which have been made, not in the interest of individuals, but for the preservation of the lives of patients and paupers—are strictly carried out; and that the action of the Pharmaceutical Society in the matter is perfectly right and proper and entitled to support from every influential quarter.

The New Ulster Medical Institute.

The foundation-stone of an institute in connection with the Ulster Medical Society was laid by Professor Redfern, M.D., F.R.C.S., on April 12. The site for the building has been leased from the governors of the Royal Belfast Academical Institution, and, when erected, the new institute will be fitted up in the most complete manner. It is expected that the building, which will cost about 6,500*l.*, and is given by Professor Whittle, M.D., will be ready this year.

A National Question.

In reference to the recent letter of Messrs. Leslie, Dublin, to the Dungarvan Guardians, taking exception to the Board advertising for English medicine tenders—on the assumption that there was a "ring" among the Irish houses (and which has already appeared in the *C. & D.*)—a further letter has been received by the Guardians from Messrs. Leslie. It is as follows:—

We note the Guardians consider the tone of our letter uncalled for. We certainly do not see how this can be when they are trying to obtain goods from England. We very much doubt whether any English firm would take the bother of tendering, or, if so, if they would offer better terms than the first-class Irish manufacturers. At any rate, we are under no compliment to the Dungarvan Board of Guardians. Whenever we have obtained the contract our tender has been the lowest, and we have supplied them strictly according to the terms of our bond. We only expect to get the contract if we are lower than our competitors; or if we are the same figure as a rival, we consider we have a sort of claim for preference, being the old contractors, and there being no complaints against us.

Mr. Walsh: I would like to know whether there was ever any complaint against this firm for supplying medicine not up to the mark? The Assistant Clerk: Yes; at the time of the late Guardians. Mr. Power: I would also ask the Clerk to ascertain from Messrs. Leslie how much of the raw material they get from England. We should not be expected to pay more money for Irish goods than for English. It would demoralise Irish manufacturers if they were sure of being paid more for their goods here at home than could be obtained by English firms for the same article. The tenders were then considered. Messrs. Leslie's tender was 12½ per cent. off, Mr. Houghton (Cork) 4 per cent., and an English firm tendered at 10 per cent. off. Mr. Power proposed that the Cork firm (a local one) get the contract.

Mr. Lynch seconded the motion. Mr. Hayes: If you do not take Leslie's, you should give it to the English firm that allows 10 per cent. Messrs. Leslie's contract, however, being the lowest, was eventually accepted.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

A Good Investment.

Mr. A. Gall, chemist and druggist, has purchased the valuable property at Nos. 2 and 4 Broad Street and 1 High Street, one of the best sites in Frazerburgh.

A Traveller's Death.

Mr. Peter French, described as a traveller for a firm of Glasgow chemists, died suddenly in the Maxwell Arms Hotel, Dalbeattie, on April 11. Death was due to failure of the heart's action.

Chemical Industry.

The annual business meeting of the Scottish Section of the Society of Chemical Industry was held on April 15 in the Windsor Hotel, Edinburgh, Dr. Wm. Frew (Vice-Chairman) presiding. The report submitted by the Hon. Secretary (Dr. Thomas Gray, Glasgow) showed that the membership had increased to 314. The following officers were elected: Chairman, Mr. T. L. Patterson; Vice-Chairman, Mr. D. J. Playfair; Members of Committee, Messrs. T. Ewan, W. Frew, J. Hendrick, J. Hope, H. Ingle, and W. G. Johnston; Hon. Secretary and Treasurer, Dr. Thomas Gray.

Business Changes.

Mr. G. Robertson, 4 Dowanhill Place, Partick, is about to open a branch in Whiteinch.

Mr. D. A. B. Leadbetter, chemist and druggist, has acquired the business of Mr. A. N. Bowman, Lochgelly, Fife.

Mr. Thomas McMaster, chemist and druggist, 322 Dumbarton Road, Glasgow, is starting a branch in the rising suburb of Scotstoun.

Inman's Stores (Limited) of Edinburgh, &c., have leased a large shop in Whyte House Mansions, Kirkcaldy, where they intend to open a general drug and dispensing business in a few weeks.

The partnership of the firm of Wallace & Watson, St. Vincent Place, Glasgow, has been dissolved, and Mr. D. Watson will, in the meantime, confine his attention to his Langside shop.

Messrs. F. Spite & Co., Victoria Road, Glasgow, whose drug-business there has hitherto been carried on as a department of the general store, are now giving up the latter, but will continue to occupy part of the premises, which is being fitted up as a first-class chemist's shop.

Personal.

Last week, at the conclusion of a series of lectures on sick-nursing and hygiene by Mrs. Peebles (wife of Mr. T. S. Peebles, chemist and druggist), at the Lochee Y.W.C.A., the talented lecturer was presented with a fine engraving of Queen Victoria, and her daughter, Miss Greta Peebles, with a gold brooch for playing the rôle of "patient."

Glasgow Notes.

A number of chemists who had their shops fitted up with electric light at the beginning of last winter find it to be a qualified success. It is expensive, and its lack of warmth keeps the windows dim.

In one district in Glasgow the small size of a much-boomed patent pill, with a leguminous name, is sold at a profit of a farthing, and other patents and proprietaries at proportionately starvation prices.

The Southern Medical Society is again on the trail. It has appointed a deputation to make strong representations to the Governors of the Victoria Infirmary respecting the abuse of the out-patient department in that institution.

Edinburgh District Chemists' Golf Club.

This club held their spring holiday competition at North Berwick on April 21, with the following results:—Captain's prize and Gibson handicap medal (after playing off tie), Mr. W. W. Ainslie, 99, scratch; (2) Mr. Duncan McLaren, 109 less 10 = 99; (3) Mr. James Stott, 103, scratch.

A Chemical Company's Affairs.

Messrs. Fraser & Fergusson, chartered accountants, Glasgow, have issued a circular regarding the affairs of Messrs. William Barr & Co. (Limited), manufacturing chemists, Bellshill. It is stated therein that, at a meeting of creditors with claims amounting to 10*l* or over, a committee, consisting of Mr. William Wellings (of Messrs. Evans, Sons & Co., Liverpool), Mr. Allan Clark (of Messrs. J. Pattison & Co., Glasgow), Mr. A. E. MacDonald (of Messrs. W. H. Alexander & Co., Glasgow), and Mr. J. McAndrew Waddell (Glasgow), was appointed to inquire into the position of the business and ascertain if a cash composition of 10*s*. per pound could be arranged, the meeting expressing the opinion that such an offer should be accepted. The committee, in recommending the acceptance of the offer to the creditors, points out that, while the state of affairs shows a dividend of 14*s*. 6*d*. per pound, it is likely that, on a forced realisation, a very much smaller dividend would be paid. The business is being continued for the present under Mr. Fergusson's supervision. The statement of affairs shows the liabilities to include secured debts, 4,850*l*; preferable debts, 200*l*; and unsecured debts, 4,299*l*. The total assets (less preferable debts) amount to 6,767*l*.

Glasgow and West of Scotland Chemists' Trade Association.

A circular has been issued on behalf of a committee by Messrs. J. W. Sutherland (convener), C. T. Cockburn, and J. Anderson Russell (interim Secretary), calling a meeting at the Athercrom, St. George's Place Entrance, Room 17, on Thursday, May 1, at 8.30 P.M. The object of the meeting is to discuss a draft constitution and rules, which have been drawn up by the committee, the ulterior purpose being to secure and maintain advanced and uniform prices for patent medicines and proprietary articles. The sympathy and support of the leading firms in Glasgow (grocers included) have been obtained, but grocers are not to be included in the Association. The draft constitution shows that the business of the Association is proposed to be conducted by an executive of thirteen members, including Chairman, Vice-Chairman, Secretary, and Treasurer, and the annual subscription will be 5*s*.

Holiday-money.

Three boys were each ordered to receive six stripes with the birch rod by the presiding Magistrates at Edinburgh Police Court, on April 23, for a theft of 3*l*. One of them, named Ford, was employed as a message-boy at the Dalry Road branch of the Scottish Drug Depot (Limited). He was sent to the bank every morning with the previous day's drawings, and he had communicated this fact to his companions in trouble. Monday last was the spring holiday, and on Friday night the boys arranged that they should take a trip to Aberdeen with the money which Ford should be sent to bank on Saturday morning. They carried out their plan, and were arrested when they returned to Edinburgh.

South African News.

THE EAST LONDON AND EASTERN PROVINCE AGENCY for Quibell's dips and disinfectants, hitherto held by Mr. James Coutts, has been transferred to Messrs. Dyer & Dyer.

APOTHECARIES EXEMPT.—A Bill has been gazetted for introduction into the Natal Parliament, creating a burgher defence-force for the colony. Certain exemptions are made, these including apothecaries.

IN MOURNING.—Our Cape Town correspondent says that flags were half-masted in that city in the morning of March 27, and remained so till after the funeral of Mr. Rhodes. Mourning was generally displayed on the *personnel* of the

drug-trade. The Pharmaceutical Society of Cape Colony placed a wreath on the coffin bearing the words "Supreme Regret."

JOY AND GLOOM IN KIMBERLEY.—Our Kimberley correspondent writes that Mr. W. Gasson, of the Belgravia pharmacy, has secured the contract for the supply of drugs to the Kimberley Mine and De Beers Mine Compounds. The contract is for two years and expires in March, 1904. Business in the Diamondopolis continues brisk, and the outlook is very reassuring. The news of the death of Mr. Rhodes came, although not altogether unexpected, as a great shock to the drug-trade and populace alike. Flags everywhere were flown at half-mast.

ADJUSTING THE DRUG-PRICES.—The Prices Adjustment Committee (Cape Town) called a special meeting for March 26, but the attendance was small, doubtless owing to the fact of the news of Mr. Cecil Rhodes's death having just been published. There were present Mr. A. J. Rivett (of Lennon, Limited), Mr. D. K. Petersen (of P. J. Petersen & Co.), Mr. F. C. Mathew (of Heynes, Mathew & Co.), Mr. Geo. Darroll (of Cleghorn's pharmacy), Mr. Fred. Varley (of R. G. Darroll & Co.), and Messrs. J. Sloan and G. A. Deans. The question of printing and issuing the new list of prices was agreed to, 12*l* being voted for that purpose. Copies are to be distributed to all principals, who will be asked at the same time to send along any suggestions and remarks that they may feel disposed to make, within a fortnight after receipt thereof. It is understood that a further general meeting will then take place.

Colonial and Foreign News.

A FIRE broke out in a branch of Merck's factory, at Darmstadt, on Monday, April 21. The latest information is to the effect that the fire was restricted to one large store, and the damages will not exceed 10 000*m*. (500*l*)

AN APPEAL is made in the *Times of India* on behalf of Dr. Thomas Blaney, who lies in St. George's Hospital, Bombay, with a fractured thigh, and is unable to pay for the necessary nursing and treatment. Dr. Blaney was chairman of Messrs. Kemp & Co. (Limited), Bombay, and is a well-known resident, having been connected with the Municipal Council for over twenty-five years. In the years of his prosperity Dr. Blaney attended hundreds of poor Parsees free of cost. Mr. Pell, the general manager of Kemp's, placed the facts before the public, and a generous subscription has resulted.

ANALYST'S REPORT.—The report of Major Collis Barry, Chemical Analyser to the Government of Bombay, shows that the number of analyses last year was in excess of any previous year. The largest number of analyses come under the head of medico-legal cases, and it appears that cases of suspected poisoning in the Presidency exceeded two hundred in three out of the last five years. Arsenic holds the field as the favourite poison; a decrease is noticeable under opium; while "other alkaloids" showed a sudden increase to ten from one or two cases in previous years. Arsenic is also the poison most frequently used on cattle, which is followed in frequency by the use of the seeds of yellow oleander. During the year an officer of the Royal Army Medical Corps was given instruction in radiography, and a large number of radiographs were taken in the various hospitals of Bombay.

CAIRO CHEMISTS' ASSISTANTS' ASSOCIATION.—The second general meeting of this Association was held in the first week of this month. The large attendance was representative of the principal pharmacies of the city. The President (Mr. N. Georgiadis), in an excellent speech, said the hours of duty in pharmacy are becoming more exaggeratedly and unnecessarily long, and considering the exhausting nature of the pharmacist's work of hand and brain, the many and various calls upon his knowledge and experience, and his position as a sort of counsellor and guardian of the public health, it is becoming an urgent necessity to seek a means of curtailing the number of hours (sixteen or seventeen out of the twenty-four at present being the day's "slavery"). These are admitted on all hands to be excessive, and consider-

ably longer than those obtaining in any city of Europe, or even the world. He exhorted the members to closer union for their mutual welfare, and set forth clearly the aims and object of the newly formed Association. They propose to attempt to induce the chief proprietors to agree unanimously on an earlier hour for closing, and, if possible, to secure rest on the Sabbath day. A discussion followed, and a committee was appointed to form a deputation to interview the principal chemists, and obtain their consent, if possible, to the closing of pharmacies not later than 10 P.M., instead of 11 P.M. and even midnight, leaving an assistant on the premises to answer the night-bell.

French News.

(From our Paris Correspondent.)

A SACRED PHOTOGRAPH.—An announcement of an unusual nature was made last Monday afternoon at the weekly meeting of the Paris Academy of Sciences by Dr. Yves Delage, professor of Zoology at the Sorbonne. According to him, what amount to photograph negatives of the body of Christ have been discovered, these negatives being the reddish-coloured stains found on the Holy Shroud kept in the Treasure Chamber at Turin Cathedral. This sacred relic, the authenticity of which is generally recognised, belongs to the Royal Family of the Savoy dynasty, but the secret of the stains on the Shroud have only been recently revealed. It was Dr. Paul Vignon, a professor at the Paris Sorbonne, who first discovered the analogy of the stains to the negative of a photograph, and when reproduced by photography a picture of the body of Christ was obtained of a startlingly realistic nature. The hands are crossed over the body, and the imprints of the nails are plainly visible; but their marks are on the wrists, and not on the palms of the hands as is usually supposed. The wound made by the spear in Christ's side is plainly seen, as well as the marks of the scourging on His back. The lacerations caused by the crown of thorns are visible, and also drops of coagulated blood. Commandant Colson, a well-known professor of physics at Paris, assisted in the scientific demonstration of this remarkable discovery. He showed that various chemical substances—as, for example, ammoniacal-vapours—can project a photographic negative on a screen in darkness. By reference to various very ancient texts, it was shown that the Holy Shroud had imbibed a mixture of oil and aloes. Experiments were made in connection with these substances, but without any result of importance until M. Armand Gautier, professor of biological chemistry at the Faculty of Medicine here, drew attention to the fact that the body of a man covered with blood and sweat, who has died in the sunlight after undergoing torture or severe pain, would give off strong alkaline vapours. Further experiments, bearing this in mind, led to the photographs being successfully obtained. A series of combinations of circumstances or chemical processes was necessary for obtaining this curious result, and Dr. Delage said last Monday that these coloured stains, which have always been thought to be bloodstains, are really themselves photographic negatives of the dead body of Christ. Were it not that the question of these interesting photographs has been brought forward under such serious scientific auspices, one might be inclined to treat the announcement with a certain amount of scepticism; but the fact that a distinguished member of the Paris Academy of Sciences has taken the matter up ought to be sufficient guarantee for enabling us to accept his remarkable demonstration with credence. Photographs showing both the negative and positive of the imprints on the Holy Shroud are now being exhibited at the office of the Paris *Figaro*, and I was able to inspect them last Wednesday. The face is, all things considered, very distinct, and does not in any way destroy the preconceived idea one has of the Christ's features.

DANVAL, THE CONVICT-PHARMACIST, PARDONED.—On Thursday afternoon of last week M. Loubet, the President of the Republic, signed the pardon of the pharmacien Danval, who, as I have already mentioned, was condemned twenty-four years ago on the charge of having poisoned his

wife with arsenic. As a result of the conference in favour of Danval, referred to last week, the President was petitioned to grant an audience to the delegates who had accepted the mission of approaching him, with a view to laying before him the scientific reasons for supposing that the ex-pharmacist is innocent of the crime which he has expiated. The delegates were informed that the President would receive them when he had personally studied the documents connected with the case. This formality having been gone through, an audience was granted at the Elysée Palace on Thursday, at 5 P.M. The delegates were headed by M. Trarieux, President of the League of the Rights of Man, and included several prominent scientific men who had taken an interest in the case, including Professor Cornil, Dr. Chatin, and Professor Béhal, of the Paris School of Pharmacy, also several office-bearers of the Syndicate of French Pharmacists and of the Association of Pharmacy Students, as well as members of the staff of *Le Journal*, which newspaper has taken a leading part in the movement in favour of Danval. The President of the Republic received these gentlemen with marked cordiality, and they found him a ready listener. The principal documents of the case were on his desk, and, after explaining that he had studied them with care, he proceeded to sign the decree that had been already prepared, adding, "The pardon; here it is!" M. Loubet, who is himself a distinguished lawyer, chatted for some time with some of the delegates, and when they left he shook hands with each one. He specially complimented M. Jacques Dhur, the reporter of *Le Journal*, who interviewed Danval at the convict settlement at New Caledonia, and started the campaign for obtaining a pardon. The news was at once telegraphed to Danval, and the following reply has been received from him:—"Bourail, April 19, 9.55 A.M. Thank you all for pardon. Hope to obtain revision for honour's sake.—Danval." This seems to imply that he is not yet quite satisfied, and that he hopes to get a full revision of the sentence. *Le Journal* has been reproducing in its pages the report of the sensational trial in question of twenty-four years ago, and there is a good deal of detail in the evidence and cross-examinations which do not by any means redound to Danval's credit. In fact the story of his former private life in many details is scarcely pleasant reading, and it was undoubtedly these facts that weighed heavily with the Judges in passing sentence, but as to the technical fact as to whether he poisoned his wife or not with arsenic, French scientific opinion is to-day practically unanimous in agreeing that there was a miscarriage of justice in condemning him. Most of the leading expert chemists, doctors, and pharmacists, have been interviewed on the subject, and they are apparently of one opinion. Amongst them I can cite such names as M. Berthelot, Professor Moissan, and M. Riche, Director of the Paris Mint and President for the current year of the Academy of Medicine. As a document of interest, I reproduce the petition for pardon recently received from Danval by the French Minister of Justice. It is dated from New Caledonia and reads:—

"Monsieur le Ministre,—The undersigned, Gilbert Louis Pierre Marie Mordefroy Danval, born on January 25, 1845, at Gannat, Allier, formerly pharmacist at Paris, transported to New Caledonia, under the No. 10676, and arrived February 11, 1879, per s.s. *Navarin*, has the honour to humbly solicit pardon for the life sentence to which he was condemned on May 10, 1878, by the Paris Court of Assizes, on the charge of poisoning Mathilde Jarry, his wife. Although the facts which led to his being condemned appeared to be materially against him, he swears to his innocence, and lays claim to good conduct and zeal in his work, in which he has set a good example since he is in New Caledonia. After having been employed for two years as assistant pharmacist at Bourail without receiving the slightest reproach, he received a concession in 1884 and since then has devoted himself to the culture of land, and although a stranger to agricultural work, he has earned a living for himself and family, with the aid of one employé, who has worked with him for seventeen years. Having married again, he has brought up a family of three children, a daughter now 16 years of age, and two sons, one 15, and the other 11 years old. It is above all inspired by his paternal love and in the agony in which he is plunged by the uncertainty for his children's future that Danval desires to see this petition favourably received. What an affront for them! What misery for him to leave them in dying the souvenir of such a sentence without mercy! And the child is formed from examples! I have the honour to be, &c. (Signed.) LOUIS DANVAL."

Winter Session.

Chemical Society.

A VERY thinly attended meeting was held at Burlington House on Thursday, April 17, at 8 o'clock, when the chair was taken by Professor Fildes, in the absence of the President. After the reading of the minutes dealing with the last three meetings, Dr. DIVERS communicated a paper by Dr. P. C. RAY on

MERCURAMMONIUM SALTS OF NITROUS ACID.

Dr. Divers, who has accomplished a great deal of work on inorganic sulphamido- and nitro-compounds, is a chemist with a grievance against teachers and text-books. The latter still persist in ignoring the influence exerted by nitrous acid when metals such as copper, mercury, and silver are dissolved in nitric acid, or, as Dr. Divers would have us say, "nitric acid containing a trace of nitrous acid." Fortunately, however, for students of chemistry, most teachers are interested in teaching the broad principles of the science rather than in manufacturing animated encyclopædias of chemical information. After describing his own views on this matter at some length, Dr. Divers proceeded to give the gist of Dr. Ray's paper, which described a series of double nitrites of the hypothetical mercurammonium, $\text{NH}_5''\text{H}_2$, which may be regarded as the basic radical of white precipitate and similar substances. Various reactions of these salts, and especially their behaviour with hydrochloric and hydrobromic acids, were studied, with the result that the author thinks he is justified in regarding them as mercurammonium salts, rather than double salts of mercury and ammonium.

The next paper was by Dr. CROSSLEY on

ISOPROPYL DIHYDRO-RESORCINS.

Four of these substances have been prepared by condensing an appropriate ketone with malonic ester in the usual way. When they are heated with barium hydroxide two of them suffer fission of the benzene nucleus, whilst the others are unattacked. This difference in behaviour appears to depend upon the position of the isopropyl group. It is also interesting to find that the four types examined exist generally in the keto-enol modifications instead of the usual di-keto form.

Dr. HEWITT and Mr. J. H. TERVET then submitted a paper on

OXONIUM SALTS OF FLUORANE AND ITS DERIVATIVES.

Dr. Hewitt some time ago put forward the theory that such substances as quinine, fluorescein, and other fluorescent bodies possess a chemical structure continually varying between two forms, and that the energy-changes thus produced result in the degradation of invisible to visible radiations. Whatever may be urged against the theory on physical grounds, a considerable body of facts has been collected in its favour on the chemical side, and the present paper added still more. The authors have succeeded in preparing from the colourless, non-fluorescent substance fluorane compounds with the mineral acids which are, as Dr. Hewitt had predicted, fluorescent and coloured. These salts are also interesting as exhibiting further examples of the tetravalency of oxygen in pyrone compounds.

As none of the authors of the remaining papers on the list were present, Dr. Tilden was about to propose that they be taken as read, when Dr. MORGAN stepped into the breach with a contribution on the "Comparative Reactivities of Substituted Diamines" which gave an account of the action of methyl haloids on phenylene diamine and its homologues. The remaining papers, which were chiefly of an agricultural character and had brought together a number of agricultural chemists, were then taken as read, and the meeting was adjourned until Wednesday, April 30.

Chemists' Assistants' Association.

THE meeting of the above Association, held at 73 Newman Street, W., on April 17, presided over by Mr. F. W. PECK (President) was devoted to an exhibition of objects connected with pharmacy and short papers.

Mr. C. T. GARDNER, of the London Hospital, gave an explanation of a flask, designed by himself, for the preparation and sterilisation of gelatin injections, which was described in *C. & D.*, September 7, 1901, page 442.

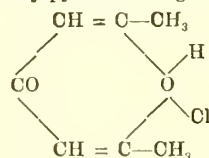
Mr. Hyman exhibited a powerful microscope and several slides of petrological subjects.

Mr. R. E. Lownsbrough produced some half-dozen bottles of a mixture of potassium bicarbonate and sodium salicylate in solution of varying degrees of blackness, and also one perfectly clear which had been prepared some three weeks since with distilled water saturated with carbonic-acid gas. He also exhibited some beautifully mounted specimens of "Plant Misfortunes," as he termed them; principally leaves attacked by various fungi.

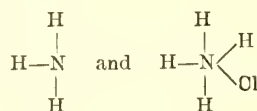
Mr. W. Garsed gave a "lecturette" on

THE HYDROCHLORIDE OF DIMETHYLPYRONE.

Oxygen, said Mr. Garsed, is generally regarded as being divalent, but dimethylpyrone having the formula—

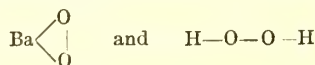


—seemed to point to its being quadrivalent. All are familiar, he proceeded, with nitrogenous bodies, such as the alkaloids which have basic properties. It is assumed, in explanation, that the nitrogen in the salts, which is trivalent in the bases themselves, becomes pentavalent. On this hypothesis ammonium and ammonium chloride would be described as follows:—

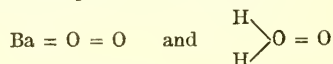


Dimethylpyrone, however, is peculiar because, although it contains no nitrogen, it has basic properties, and forms stable salts such as hydrochloride and oxalate. The only apparent explanation of this property in dimethylpyrone is that in the salts the oxygen—divalent in the substance itself—becomes tetravalent.

Barium and hydrogen peroxides are generally described—



—but the existence of the substance under discussion, and the unstable nature of barium and hydrogen peroxides would show that the more probable formulæ are—



Mr. SNOW described a case containing various crystals made during his apprenticeship some thirty years ago, and also some glycerin obtained in making emplastrum plumbi.

Mr. Tweedy showed some specimens of salt and a stuffed specimen of the Queensland platypus. He also exhibited an emulsifier, specimens of thyroid and suprarenal glands, dissected and undissected (lent by Messrs. Burroughs Wellcome & Co.), and jars, pots, and bottles, labelled at a cost of about $1\frac{1}{2}\%$, for paint, gold, and varnish. Mr. Howie had also sent his prize photo of the summit of Ben Nevis.

Mr. Peck had a collection of micro-organisms of various diseases.

Mr. FRANKLIN contributed a note on

AN OLD PHARMACOPŒIA,

the second edition of *Pharmacopœia Bateana*, including the *Arcana Goddardiana*, published by Mr. James Shipton, a London apothecary. The formulæ given were the prescriptions of Dr. George Bate, a celebrated physician who flourished in the reign of Charles II. The book makes extensive use of the old alchemical symbols, and Mr. Franklin gave a running commentary of the contents.

Edinburgh Chemists', Assistants', and Apprentices' Association.

A MEETING of this Association was held at 36 York Place, Edinburgh, on April 16, Mr. J. G. Selaver (President) in the chair. The first communication was by Mr. FRASER MCDIARMID on

FLUID EXTRACT OF NUX VOMICA.

Mr. McDiarmid said of the fluid extracts introduced into the 1898 B.P. the fluid extract of nux vomica is the least satisfactory. The evolution of the present formula for the extract was as follows: In the 1867 B.P. the powder was boiled with successive quantities of rectified spirit till exhausted, and the liquors evaporated to a soft extract without standardisation. Experiments were made by Dunstan and Short with a view to improving the menstruum and securing a uniform preparation from the alkaloidal point of view. Rectified spirit extracts a large portion of the fatty oil of the seeds, and therefore a menstruum consisting of 4 parts rectified spirit and 1 part water was suggested and finally adopted in the 1885 B.P., whilst the extract was standardised to 15 per cent. of total alkaloids. According to Cripps, this solvent "dissolves the alkaloids very perfectly, but extracts scarcely any oil." Unfortunately, as dispensers well know, that is a figure of speech. The 1898 B.P. orders a solvent rather less alcoholic—70 per cent. alcohol; i.e., about 3½ of rectified spirit to 1 of water—with a similar result. A large proportion of the fatty oil in the seeds is present in the fluid extract, and consequently in the solid extract. Yet "Pharmacopœdia" continues the legend about the non-solvent effect of the weaker menstruum. The whole matter has been thoroughly investigated by Greenish and Smith in the Research Laboratory, and suggestions made whereby the oil might be filtered out in the process, and Mr. McDiarmid has found that a liquid extract made as suggested by Greenish and Smith is greatly superior to one obtained by the official method, but the process is troublesome. Would it not be better to use a menstruum which would not dissolve the oil at all? A weaker alcohol, or, as suggested by Lucas for the solid extract some years ago, a mixture of acetic acid and water, might be adopted. Mr. McDiarmid then considered the different results which would be obtained from seeds containing widely different proportions of alkaloids. Supposing the finest Ceylon seeds were used, which contain as much as 5.3 per cent. of total alkaloids, and where the strychnine might be as 3 to 1 of brucine, then from 1 lb. of seeds one might obtain as much as 40 or 42 fl. oz. of standard liquid extract, whereas in another case only 11 oz. of standard extract was obtained. What, then, becomes of our boasted uniformity? The adoption of some process which will exclude the oil of nux vomica from the extract would conduce to ease as well as accuracy in the estimation process. Bird has worked out a method by which the oil is got rid of in the first part of the estimation, which is eminently satisfactory. Yet it is questionable if two operators, dealing with the same extract, would get approximately the same results. The separation of strychnine is not, in practice, the easy matter which one might infer from the pharmacopœial directions. Various modifications have been suggested, such as the employment of 5 instead of 10 c.c., the use of a measured quantity of wash-water in washing the strychnine ferrocyanide, the use of wash-water at fixed temperature; and yet, however carefully done, the strychnine residue always seems to turn red with nitric acid. Umney says the strychnine result is rather above the actual amount present; another writer says that a definite quantity is lost with each 10 c.c. of wash-water, and would add this to the amount really found; so that the ordinary pharmacist feels justified in saying that much remains to be done to furnish a formula for liquid extract of nux vomica which will produce a uniform preparation by whomsoever made.

Mr. SIVEWRIGHT said he had observed a very considerable variation in the colour of tincture of nux vomica made from different fluid extracts.

Mr. ROWLAND said it had been suggested that some makers use colouring-matter so as to ensure their fluid extract being always of the same colour.

Mr. HILL said some years ago Mr. Day showed that a very good and definite tincture of nux vomica could be made

direct from the seeds by percolation. It could also be made quite definitely by estimating the seeds and percolating till exhausted. With regard to the suggestion to employ acetic acid, in the January number of Squibb's *Ephemeris*, the employment of a 10-per-cent. acetic-acid menstruum in the preparation of fluid extracts was recommended. Referring to the U.S.P. acetic fluid extract of nux vomica, it was stated that after standing a year it was still clear, and that the formula gave a reliable extract because of the solvent power of the acetic acid.

Mr. DUNCAN said it was very doubtful if the introduction of these standardised fluid extracts marked a real advance in pharmacy. He did not think they would ever be satisfied till they abandoned them altogether and employed strychnine itself or strychnine and brucine. He would like to ask if Mr. McDiarmid had had any trouble with the deposit, sometimes considerable, in fluid extract of ipecacuanha. He found it contained considerable quantities of lime and also alkaloid. It seemed as if it might be caused by using weaker alcohol for the second and third percolations.

Mr. CURRIE confirmed the experience that a fluid extract or tincture made in summer became hazy, and a layer of oil separated, in winter.

Mr. ROWLAND said the addition of 2 per cent. of acetic acid was most valuable in extracting kola-seeds.

Mr. MCDIARMID, in reply, said the colour of the extract varied with different seeds. One sample of seed might yield 40 oz. and another only 11 oz. from 1 lb. of seeds, and, therefore, there would be a difference in colour. He had observed in the case of belladonna extract that if heat was used the extract was darkened in colour, and probably it was the same with all extracts. He had examined the deposit in fluid extract of ipecacuanha and found alkaloid present.

The next communication was by Mr. ARCHIBALD CURRIE, on

THE SOLVENT ACTION OF SODIUM SALICYLATE.

Mr. Currie said he recently had a prescription for compound tincture of cinchona in an aqueous solution of sodium salicylate. On dissolving the sodium salicylate in the water and adding the compound tincture of cinchona last, the heavy flocculent precipitate produced gives a most unsightly mixture. By dissolving the sodium salicylate in about twice its weight of water adding the tincture to this strong solution, and then making up to the prescribed quantity by adding the remainder of the water, a mixture is obtained almost free from any precipitate. Mr. Currie was led by this to investigate the solvent action of sodium salicylate in the case of other tinctures containing substances of a resinous nature, and he found that, in almost every case where no fixed or volatile oil is present, sodium salicylate renders them soluble in water. Sodium salicylate renders the tinctures of catechu, arnica, myrrh, and digitalis, and fluid extract of cascara sagrada, miscible clear with water; but myrrh requires a very large proportion of sodium salicylate to bring it into solution, and even then is not quite clear, owing, perhaps, to the volatile oil.

The next communication was by Mr. JAMES SIVEWRIGHT on

COMPRESSED TABLETS.

Mr. Sivewright's paper consisted of a few directions which might be of use at the dispensing-counter. He considered that machines with a steady compressing action are better than those with a stamping action. The Freck machine was shown and spoken of as simple in construction and easily worked. The dies and all polished parts of the machine must be kept absolutely free from rust and brightly polished, or success is impossible. They should be coated with vaseline when not in use. The drug to be compressed must be in a granular, perfectly uniform powder. If this is not carefully attended to, the powder will not run readily from the funnel into the die, nor will the tablets be of the same size. There are some powders in this form which require no preparation, such as salol, potassium bromide, ammonium chloride, and granular pepsin, but the majority of powders and mixtures require to be granulated and to have some addition made before they can be compressed. Speaking generally, insoluble substances are granulated by the addition of sugar and water, and soluble substances by the addition of gum and water. About 10 per cent. of sugar or gum is a

suitable addition, very soluble or deliquescent substances requiring more gum than the less soluble. The powder is then sifted and dried. A No. 20 sieve gives suitable granules. A powder which has been granulated by the addition of sugar is much more liable to adhere to the die and punches than one prepared with gum acacia. Mr. Sivewright prefers gum, taking care not to compress too hard, and at the same time mixing with the powder about 10 per cent. of powdered arrowroot, which causes the tablet to disintegrate. All insoluble substances should have a little arrowroot added. Water is sometimes objectionable in damping the powder—as, for example, when powdered rhubarb is mixed with sodium bicarbonate or magnesia. In such cases rectified spirit is used. The principal trouble in preparing tablets is caused by the powder adhering to the die. This is remedied by spreading out the granulated powder on a sheet of paper and dusting it over with talc, about 3 or 4 gr. being sufficient for 1 oz. of powder. With some powders this is not sufficient, and an oil is necessary. This is applied by means of a spray. Thirty grains of vaseline or vaseline oil is dissolved in ether and a small quantity sprayed over the powder, which is dried before compression. Sometimes both oil and talc are used. When the tablets have to be dissolved talc and oil are inadmissible as lubricants, and powdered boric acid is used. Effervescent tablets are best made by granulating with acacia and preparing the granules in two separate portions—the sodium bicarbonate with any alkaline constituents in one lot, and the tartaric acid with any acid constituents in the other. The two sets of granules are thoroughly dried and mixed just before compressing, boric acid being used as a lubricant if necessary. A mixture of 3 parts sugar of milk and 1 part of cocoa gives a very useful basis for active drugs, such as cocaine and podophyllin. The mixture gives a very nice granular powder which never adheres to the dies.

Mr. DUNCAN said it was not improbable that the solvent action of sodium salicylate was due to the fact that, salicylic acid being a weak acid, the resins combined with the sodium to form a resinat with liberation of salicylic acid, which was retained in solution by the alcohol present. With regard to compressed tablets, he observed that it was by volume, and not by weight, that they were adjusted; and he would like to ask if their accuracy could be relied upon. He had had experience of cocaine tablets where different tablets produced very markedly different results. He had recently seen a prescription for boric-acid tablets, directing three to be crushed and dissolved in water. In such cases it would surely be as well to have ordered powders.

Mr. HILL said Mr. Currie's mixture emphasized the importance of paying attention to the method of mixing in dispensing. The point about sodium salicylate was worth working out. He believed the salt had a solvent action on various substances, and he was not inclined to think there was any decomposition such as Mr. Duncan suggested. In the case of myrrh it might give a formula for an elegant antiseptic mouth-wash. One of the chief disadvantages of the tablet method of medication was that it tended to throw the dispensing of medicines into the hands of the large manufacturers, and reduce the retail pharmacist to a mere distributor. Mr. Sivewright had shown that the ordinary pharmacist could easily turn out all his own tablets if he only liked to try.

Mr. McDIARMID asked if the machine always compressed the same quantity into a tablet of equal size or would one operator produce one size and another a different size?

Mr. SIVEWRIGHT, in reply, said there was an appliance for regulating the pressure so as to ensure the same size tablet. In practice, however, he never used it, as one very soon acquired the habit of operating so as to give practical uniformity.

Mr. Sivewright afterwards gave a demonstration of the use of the Freck machine by preparing some salol tablets.

Votes of thanks were accorded to Messrs. McDiarmid, Currie, and Sivewright.

Cardiff Chemists' Assistants' Association.

The last sessional meeting of this Association was held at the Queen's Café, in St. Mary Street, on April 18, under the presidency of Mr. A. Barrington Sparrow, when Dr.

WILLIAMS, Medical Officer of Health to the Glamorgan County Council, delivered an address on

THE ADULTERATION OF FOOD AND DRUGS.

He said adulteration was a very ancient practice, and was probably resorted to in a very crude way soon after people commenced to barter goods. They found in ancient times the most frequent references to the adulteration of wine, but Pliny mentioned that bakers were also addicted to the adulteration of bread with what he termed soft sweet white wheat, which he (the lecturer) supposed was sulphate of lime. Heavy penalties were imposed on adulterators in the last century, but only with regard to articles which were specially taxed, and in reference to which adulteration meant a loss to the State. In 1724 there was a penalty of 100*l.* imposed upon whoever mixed burnt beans and vegetable matter with coffee, which did not pay any Excise duties. The first real step taken to protect the public against adulteration was in 1850, when the editor of the *Lancet* instituted inquiries into the matter, and pilloried the dealers in adulterated articles. In 1855 a Select Committee of Parliament was appointed to investigate the practice, and on the report of that Committee the first Adulteration Act of 1860 was passed for the appointment of analysts. In 1872 another Act was passed empowering inspectors of nuisances to purchase samples for analysis. A further Select Committee was appointed in 1874, and, as the result of their labours, the Act of 1875 was passed. Then followed the Act of 1879, the Margarine Act of 1887, and the amended Act of 1899. It was under Section 6 of the 1875 Act that the authorities in Glamorgan had taken all their proceedings, so that the onus of proof that the article analysed was not injurious to health fell upon the defendants. Dr. Williams then went into a very full exposition of the powers conferred by the Sale of Food and Drugs Acts. He said the officials of the Glamorgan County Council found it very difficult to know what samples to buy for analysis, especially when it came to drugs. At first adulteration was so exceedingly prevalent that one could scarcely take a sample of anything without finding adulteration, but that was not the case now, although he believed that a large amount of margarine was still sold as butter. He did not think that the inspectors took as many samples of drugs as they ought to do. That was a very wide branch, and bristled with difficulties, but he thought that much good could be done by sampling goods of definite composition. Of course no one purchased such things as Williams's pink pills, castor-oil pills, and life and death elixir; but with regard to properly regulated drugs the case was different, for it had been held that when a person purchased a drug for which there was a standard in the British Pharmacopœia, it ought to be composed of certain definite constituents. In Glamorgan they took principally for analysis almond oil, olive oil, camphorated oil, milk of sulphur, precipitated chalk, fluid magnesia, liquorice powder, tincture of iodine, and zinc and mercury ointments. He once went into a shop in North Wales for some camphorated oil, and they gave him bicycle-oil. (Laughter.) Prescriptions were very difficult to deal with. He did not remember any inspector taking one, but it could be done. Medical remedies made up according to special prescriptions might be purchased for analysis, but in those cases they had to obtain three portions of the prescription. If the analysis showed any variation from the prescription, proceedings could be taken, even though the purchaser got more of any particular drug than he demanded. Drugs not contained in the British Pharmacopœia—such as glycerin and lime-juice, oatmeal-soap, and proprietary medicines—they did not take for analysis. The lecturer quoted statistics showing how adulteration of articles of food had been very largely diminished in the district.

The PRESIDENT, in proposing a vote of thanks to Dr. Williams for his address, observed that chemists as a rule were too honest to impose upon the public, though he had no doubt that in different parts of the district acts of adulteration did occur. In some establishments they kept a bottle of sweet nitre specially for the inspector, but he supposed the inspector could, if he liked, demand a sample from a stock-bottle. A careless dispenser, he took it, might be called an adulterator.

Mr. J. FERRIER seconded the motion. He said it was impossible to keep spirit of nitre of the proper strength, and,

in his opinion, there ought to be no standard for that preparation.

The motion was carried unanimously.

Halifax Chemists' Association.

A MEETING of this Association was held on April 17 at the Old Cook Hotel, Halifax, when Mr. H. C. BRIERLEY delivered a lecture on

THE X RAYS,

which took the form of an account of the discovery of the x rays in 1896 by Röntgen, and an explanation of the phenomena involved. Mention was made of the uses of radiography to the surgeon, and a radiograph was taken in sight of the audience.

Songs were afterwards contributed by Mrs. Dixon, Mr. Brierley, Mr. W. S. Thompson, and the President.

Northampton Chemists' Association.

A SPECIAL meeting of the above Association was held at the Black Boy Hotel, Northampton, on Friday, April 18, to consider

THE EARLY-CLOSING QUESTION,

which was adjourned from the previous meeting, the President (Mr. W. D. Mayger) in the chair.

The PRESIDENT was in favour of closing at 2 o'clock on Thursday afternoons, which is early-closing day in Northampton, but said his own way was not so clear as other members' because he had a sub-post-office for telegraphs connected with his business. After some discussion, all the master-chemists present promised to close at 2 o'clock on Thursdays and at 8 o'clock other nights, Saturdays excepted, and the President consented to wait upon absentees and ascertain their views. It was also agreed to advertise in the Northampton papers the names of all the firms who would close early, and it was agreed that the early closing should commence on May 1. The President promised the Association that the telegraphic business should not stand in the way of his closing his chemist's business at the time agreed upon even if he had to erect a partition in the shop.

Mr. ARNETT also spoke with gratitude of the action of Mr. Dennis, Mr. F. C. Ashford, and Mr. Ingle, who were undoubtedly making sacrifices in order to fall in with the other members of the Association.

Mr. E. C. ASHFORD suggested that the Association hold a picnic or holiday in the summer. The idea was cordially taken up, and Mr. FLINTON HARRIS said that if the Association went up to London he would be delighted to arrange a river picnic from Richmond, and entertain them there.

Society of Arts.

PROFESSOR SILVANUS P. THOMPSON read a paper before the Society on April 23 on

OPTO-TECHNICS.

He began by estimating that there were no fewer than 15,000 to 20,000 persons engaged in the optical industries in the London district alone, using optical in its most inclusive sense. The number of simple opticians or of opticians who combine the trade with other business, such as pharmacy, he gave as at least 10,000 within the United Kingdom. All these required for the proper conduct of their business (a) mathematical knowledge and practice in calculating; (b) knowledge of the general physical properties of light, refraction, dispersion, reflection, &c; (c) practice in using, and comprehension of the principles of, such optical measuring-instruments as the spectrometer and the spherometer, also the focimeter and other instruments; and (d) knowledge as to the optical properties of glass of different kinds, and of a few other substances used in optical work—quartz, flint, flint, Canada balsam, water, cedar-wood oil, &c., acquired by observation with measuring-instruments. The optical manufacturer needs further and more specialised instruction. This brought Professor Thompson to the point of his paper, which was that at present there does not exist any institution where the necessary instruction can be obtained; and he suggested the creation of a special

technical college—an opto-technical institute—devoted to the interests of optical science. He spoke of the uselessness of the present South Kensington classes on sound, light, and heat to opticians, the attendance at which has decreased in the elementary stage from 5,162 in 1892 to 949 in 1901. The classes are not of practical value, and the examination-course warps and blights them. Reference was made to the excellent classes in optics at the Northampton Institute, which is a step to the realisation of the lecturer's idea of monotechnic in preference to polytechnic schools. Opticians have begun to organise themselves by the institution of examinations by the British Optical Society and the Spectacle-makers' Company, and the foundation of the Optical Society. In four years the Spectacle-makers' Company has granted 364 diplomas, and given a stimulus which has been of great benefit to the trade. It is therefore a favourable time for the creation of an Opto-technical Institute, Professor Thompson sketching the outline of the three-years' course he suggests.

In the discussion which took place the CHAIRMAN (Dr. Glazebrook), Professor CAREY FOSTER, Mr. DALLMEYER, General WATERHOUSE, Mr. C. BECK, Mr. LOVIBOND, Professor HERSHEY, and Mr. BRIDGES LEE took part, all agreeing with what Professor THOMPSON had said; and the last-named, in replying, said the London County Council had the necessary money for the creation of the Institute in the unexpended balance of the technical education grant, which amounts to something like 20,000*l.* a year.

Manchester Pharmaceutical Association.

The thirty-sixth annual meeting of the Association was held at the Victoria Hotel on Wednesday evening, April 23, the President (Mr. Geo. S. Woolley) in the chair. In the

ANNUAL REPORT,

which detailed the work of the session, reference was made to the deaths of Mr. Siebold and Mr. Martindale.

The Treasurer's accounts were submitted, and showed a balance in hand of over 14*l.*

The CHAIRMAN, in moving the adoption of the report and balance-sheet, said the work of the year had been very satisfactory. The papers had been of considerable merit and usefulness to those who attended. The attendances, however, had not been so good as he could have wished, and on one occasion the paper had to be abandoned because there was not an audience worthy of the occasion. He wished something could be done in that city and neighbourhood to make the Association better supported. He referred to the slight legislative efforts of the year, and spoke in graceful terms regarding Mr. Siebold and Mr. Martindale, as well as Mr. Fawcitt. He also touched upon the question of pharmacy degrees and the position of Owens College on that matter, stating that a deputation from the Association is to wait on the authorities of the College in regard to it.

Mr. KIRKBY seconded the motion for the adoption of the report, which was carried.

ELECTION OF OFFICERS.

Mr. G. S. Woolley was re-elected President of the Association; Vice-Presidents, Messrs. H. Kemp and W. Kirkby; Hon. Treasurer, A. J. Pidd; Hon. Secretary, J. C. Kidd; other members of Council: J. Wild, W. Lane, J. Westmacott, J. Taylor, J. Woodruff Walton, E. Yates, J. Grier, and D. Lewis; Auditor, J. Blyton.

Mr. RYMER YOUNG, commenting upon the apathy of pharmacists in attending the meetings of the Association, said such apathy was almost universal at almost any scientific meeting, and it was increasing. Even in Lancashire they could not find another member anxious to join the Pharmaceutical Council. (Laughter.)

The CHAIRMAN submitted a letter received from Mr. C. E. Pickering, anxious to secure a seat on the Pharmaceutical Council.

CHEQUE TAX.

The CHAIRMAN commented upon the proposed increase on cheques (see his letter, page 677), and a resolution protesting against this increased 1*l.* on cheques was carried unani-

mously, a copy to be sent to the Chancellor of the Exchequer.

OTHER BUSINESS.

The following members were appointed a deputation to attend the Pharmaceutical Conference at Dundee: Messrs. Pidd, Johnstone, Kidd, Philips, Kemp, Grier, and Kirkby.

Mr. J. C. KIDD then read a paper on "Methods of Sight-testing," illustrated by chalk diagrams and various lenses.

Chemists' and Druggists' Society.

A SUB COMMITTEE of the Society and the Belfast Grocers' Association met on April 16 in the Board Room, Royal Avenue, to consider the matter of

THE PRICES OF PROPRIETARY ARTICLES.

Mr. JOHN WATSON presided, and briefly stated the object of the meeting which was to devise some plan whereby an adequate profit might be secured to all traders on the proprietary articles now so largely handled. The manufacturers had repeatedly stated that if the retailers could only come to a proper understanding on the subject there would be no trouble in getting a fair margin of profit. This was a question that affected grocers as well as druggists, and for that reason both had joined issue. It would be a matter for the traders to consider, if better profits could not be obtained, whether those lines which did not bear a fair profit should be discouraged and eliminated from their trade-lists entirely.

Mr. J. D. CARSE (druggist) stated the matter was engaging the attention of associations across the water. He found that, out of thirty-four reports of meetings, twenty had dealt with this subject. He considered a list should be made of those articles cut in price, and a resolution fixing the price passed on the matter.

Mr. J. J. MCKER (grocer) thought traders were very foolish in the way they displayed showcards and helped to push the sale of many of the non-profit-bearing lines mentioned. He hoped that the steps now being taken would result in good.

Mr. JACOB WALSH (druggist) stated the public often made mistakes and told untruths with the object of getting an article cheaper. He believed that the fixing of minimum prices by the makers was the best and simplest way out of the difficulty.

After further discussion Mr. W. J. GIBSON (druggist) proposed, and Mr. J. J. MCKER (grocer) seconded—

That, as many proprietary articles handled in common by chemists, druggists, and grocers yield, owing to excessive cutting, a totally inadequate margin of profit, it is agreed that this sub-committee, representing these sections of the trade, respectfully urge upon the manufacturers of articles (as per list) to fix a minimum wholesale and retail price to admit of a fair and reasonable profit from handling the goods, and to arrange for the protection of the price so fixed.

It was decided that the sub-committee should meet again soon and compare lists, and, when ready, forward these to the trade Press, the makers of the articles selected, and the Proprietary Articles Association. Three members of each section were appointed, together with the Secretaries, Messrs. J. M. Breach (Grocers' Section) and W. J. Rankin (Chemists' Section).

Business Changes.

MR. REGINALD COLE, chemist and druggist, of Congleton, has opened a new business at Biddulph, Staffordshire.

MESSRS. BUXTON & GRANT, chemists, have opened a general pharmacy at 176 Whiteladies Road, Redland, Bristol.

MESSRS. G. W. KENNY & CO. (LIMITED), dispensing and family chemists, have opened a pharmacy at High Street, Moreton-in-Marsh.

THE premises lately occupied by Messrs. Eugène Rimmel (Limited), 96 Strand, W.C., are being pulled down for Strand improvements. The business is shortly to be reopened at Hotel Cecil Buildings, Strand.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

EVENING MEETING.

THE last evening meeting of the session took place at 36 York Place, Edinburgh, on April 23, Mr. Peter Boa in the chair.

The first paper was on

THE TITRATION OF BORIC ACID AND BORAX,

Mr. THOS. S. BARRIE said the quantitative estimation of boric acid was until 1894 very laborious by Gooch's process, but in that year R. T. Thomson published his new process. The present contribution was intended chiefly to direct attention to the process and suggest a test for inclusion in the monographs upon the acid and borax in the next Pharmacopœia. In purely aqueous solution boric acid was neutral to methyl-orange and acid to phenolphthalein. On attempting to neutralise the acid in presence of the latter indicator with normal solution of sodium hydroxide, about a fourth part only of the theoretical amount of alkali required had been added when the solution began to show a red tinge, which deepened very slowly, and the end-reaction was indefinite. In the presence of glycerin, however—and the more glycerin the better—the end-reaction was very sharp. This action was probably due to the production of a less hydrated acid (metaboric) capable of forming a neutral salt under the conditions of experiment. On diluting this solution with much water it became slowly alkaline, due to the resolution of the metaborate formed into borax and sodium hydroxide. Mr. Barrie referred to the suggestions of various authors as to the proper quantity of glycerin which should be present before and after the testing was complete, and said his own experiments indicated that about 40 per cent. in the liquid at the end of the titration was best. In practice he dissolved about 1 gramme of the acid in 50 c.c. of water, added 50 grammes of pure glycerin and a few drops of phenolphthalein solution, and ran in the alkali in sufficient quantity (about 16 c.c.). It was important that the solution of sodium hydroxide should be free from carbonate, as small quantities of carbon dioxide spoiled the end-reaction. The following was suggested as a Pharmacopœia monograph for boric acid:—

One gramme of the acid dissolved in 50 c.c. of warm distilled water should require, after the addition of 50 grammes of glycerin and a few drops of phenolphthalein solution, 16.25 c.c. of volumetric solution of sodium hydroxide for neutralisation.

Many processes had been suggested for the estimation of borax, but Mr. Barrie thought an improved pharmacopœial test was to be found in the determination of the boric acid that the borax yields on neutralisation with semi-normal sulphuric acid. That idea was crystallised in the following, which he suggested should replace the corresponding part in the official monograph:—

One gramme of borax dissolved in 40 c.c. of distilled water should require for exact neutralisation (indicator, methyl orange) 10.55 c.c. of semi-normal sulphuric acid, and, after boiling, an addition of 50 grammes of glycerin should now require 10.55 c.c. of normal sodium-hydroxide solution to exactly neutralise (indicator, phenolphthalein).

Mr. DUNCAN agreed with Mr. Barrie in the experience he had had with Thomson's process of estimating borax. He had always found the methyl-orange process of the present Pharmacopœia come out too low. Although the process was a capital one he was not very keen about getting it introduced into the B.P. He thought they had quite enough processes in the B.P. already.

Mr. McDIARMID asked Mr. Barrie if he used two indicators—methyl orange and phenolphthalein?

Mr. BARRIE said he did.

Mr. HILL pointed out that Mr. Barrie had mentioned that in practice he used rather more than 40 per cent. of glycerin in the finished titration. He thought the figures he gave, as far as he could count, came just a little under that. He believed Thomson's process was now universally adopted by

analysts, and he thought it was highly probable that it might be introduced.

Mr. BARRIE, in the course of his reply, held that his figures were correct. Practical men did it all by weight.

Mr. HILL suspected that the others meant volume.

Mr. J. R. HILL read a paper by Mr. Thomas Dunlop on

THE TURPENTINE TEST FOR GLACIAL ACETIC ACID.

He said that subsequent to the publication, in August, 1899, of Mr. Alcock's suggested application of the converse of the B.P. test for oil of turpentine as a test for the strength of glacial acetic acid, he submitted to that test the stocks he received, but always with negative results, even although they responded to the sp. gr. and total acidity tests. This was in part confirmed by Mr. Duncan's paper of March, 1901, directing attention to the varying solubility of oil of turpentine in glacial acetic acid. In May of last year, however, a supply of glacial acetic acid which he received at first gave a negative result, but subsequently responded to the test. He, however, observed that separation had taken place on account of change of temperature, for on holding the test-tube in the closed hand for a few seconds and then shaking, solution was restored. But the solution was only temporary, for on the temperature again falling, opalescence was soon followed by separation. The temperature at separation was 18° C., at solution 22° C., whilst at 20° C. the liquid was bluish-white. Before 21° C. was reached, the acid could be seen separating from the point of the thermometer. His experience of the test since June had been that acids of full strength responded to it irrespective of temperature and pressure when it was used in the proportion of three volumes to five volumes of acid. As indicating the sensitiveness of the test, he stated that the addition of one drop (less than 1 per cent.) of water to a solution containing 100 minims of glacial acetic acid and 60 minims rectified oil of turpentine produced an immediate and complete separation, that at a temperature of 27° C. the mixture was quite milky, and that it took four volumes of this diluted acid to make a clear solution with one volume of rectified oil of turpentine. His observations on the influences of temperature and pressure on the test convinced him that the test was so unreliable that it should not be introduced into the Pharmacopœia as suggested, and where it already existed it ought to be deleted.

Mr. DUNCAN said his experience agreed with Mr. Dunlop's that the suggested test for acetic acid was of no use. The Pharmacopœia allowed the use of turpentine from various species of pines, and variations in sp. gr., odour, and boiling-point were also permitted, and with all these variations it was natural to expect variation in the solubility. Turpentine also, unlike many essential oils, became more soluble with age both in acetic acid and in alcohol. He pointed out that the Pharmacopœia defined glacial acetic acid as 99 per cent., the titration test indicated 98.9 per cent., and the boiling-point 99.2 per cent. Until the Pharmacopœia put some limit on glacial acetic acid and oil of turpentine it was needless to think of using one as a test for the other.

Mr. McDIARMID said he found that his stock of oil of turpentine dissolved quite readily in an equal volume of glacial acetic acid at 15° C.; a sample of Russian oil of turpentine with a tarry odour was also readily soluble. He (the speaker) could always get a clear solution, and he thought Squire was correct in saying that oil of turpentine was soluble in all proportions in glacial acetic acid. His acid on titration indicated 98.5 per cent.

Mr. LYON thought there was some confusion, and that more study was required to clear it up. His experience was similar to Mr. McDiarmid's.

Mr. MABEN thought Mr. Duncan had brought out a most interesting point about oil of turpentine increasing in solubility with age.

Mr. HILL pointed out that while the experience of chemists differed there seemed to be general agreement with Mr. Dunlop's opinion that this test should not be introduced into the Pharmacopœia. Mr. Dunlop had mentioned that one sample which dissolved began immediately to separate, and could not be dissolved again. On shaking it might be that those observers who found the oil of turpentine readily soluble would, if they had waited a little longer, have found the separation begin.

The next paper—by Mr. William Glass, on

SOME METHODS OF DISPENSING

was read by Mr. J. R. HILL in the author's absence. He said that in prescriptions for mixtures difficulties frequently occurred, and it was feared that the practice of chemists in solving them was not uniform. Nor did chemists indicate as a rule on the prescription how they solved the difficulty. The consequent variation in practice tended to produce in the public mind a suspicion that prescriptions were not always "accurately dispensed." Mr. Glass then proceeded to cite examples. In a prescription like the following—

Quininae hydrobrom.	...	...	gr. xxiv.
Aquæ	...	...	3viij.

M.

—the quinine salt might be dissolved by one chemist, and suspended and a "shake" label merely put on by another. Mixtures containing salts were usually, and ought to be, strained, but in cases where that could not conveniently be done without separating the part of the salt undissolved, if the salt was dissolved by means of hot water, precipitation took place in the form of crystals. In such cases the proper method was to dissolve by means of heat. If that did not alter the composition of the salt, strain, cool, and rub the separated crystals finely in a porcelain or glass mortar. Mixtures containing bismuth subnitrate without any suspending agent might be dispensed in various ways according to the opinion of the dispenser. The following might at least reasonably be adopted: (a) "Shake" simply, (b) mucilage of tragacanth, (c) mucilage of acacia, (d) glycerin. The first was hardly permissible unless the bismuth subnitrate was of a light, bulky nature, as was the case with some brands. The others would make little difference in the appearance of the mixture, only in the case of glycerin a sweetish taste would be detected. In the following—

Tr. digitalis

Sig.: m. t.i.d.

—two methods of writing the directions might lead to different results. "Ten drops" might be a very reasonable interpretation of the physician's instructions, but the dose might vary according to the method of dropping and the size of the lip of the bottle, not to speak of exceeding the dose. "Ten minims measured in a glass measure" might very allowably be written on the label, and the patient supplied with a suitable measure, thus ensuring accuracy. With regard to powder-prescriptions, a note as to the fineness of the powder used might seem needless, but such dispensing-notes would sometimes establish confidence and prevent misunderstanding. Mixing by knife in small quantities where the ingredients were in fine powder might be preferable, but the mortar in most cases gave the best and quickest results. In a prescription like the following—

Pulv. rhei	...	...	5iss.
P. sodii phosph.	...	...	3ss.
P. sodii bicarb.	...	...	5iiss.

M.

—the sodium phosphate might be slightly dried and in powder, and in other cases "exsiccata" might be used. In the dispensing of pills the excipient used might be noted, as well as the means taken to finish it—whether with pill-finisher, French chalk, liquorice, or cassia-powder, sugar-coated, silvered, or varnished. He also mentioned the various methods of preparing ointments—by means of palette-knife on a porcelain slab, or in a mortar if the powders were not sufficiently fine. The material on which plasters were spread—whether on adhesive plaster, sheepskin, chamois, calico, or muslin—should also be noted. The want of some standard pharmacopœial material afforded at least freedom to use whatever might be most convenient. In regard to the spreading of blisters, it was easy to make an elegant emplastrum cantharidis, but the emplastrum cantharidis, B.P., was hardly ever satisfactory. The use of powdered flies or liquor epi-pasticus was a necessary addition. As to dosage, in preparing a dozen suppositories it was necessary to use materials for one or two more. In preparing pills and powders provision was not made for loss, and the consequence was that the patient never got the full strength of the medicine as ordered. In small quantities of potent drugs the loss was greater.

Mr. HENRY said he was not much in agreement with him. He disapproved of dispensing potassium-chlorate mixtures with hot water. Although Mr. Glass sought uniformity, he gave four methods of dispensing bismuth mixtures without indicating a preference for any of them. There would be considerable difference between such a mixture dispensed with mucilage and with glycerin. They should not add to a doctor's prescription, and if no suspending agent was prescribed it should be dispensed with water. It was difficult to know how to deal with drops, as it depended on whether the medical man meant drops or minims. In one case, in which a doctor prescribed bromoform in drops, the desired effect was not obtained, and on the difference between drops and minims being explained to him he understood the reason.

Mr. LYON expressed his disagreement with Mr. Glass in using dried sodium phosphate in dispensing, and also with Mr. Henry when he objected to the addition of a suspender to certain mixtures. He thought it was quite proper where it enabled them to make a pre-entable mixture and did not affect the action of the medicine. He disapproved of the addition of powdered cantharides to fly-blister. He found, however, that emplastrum cantharidis B.P. was very variable, and could scarcely be got twice alike.

Mr. MCEWAN thought some of Mr. Glass's critics had misunderstood his purpose in contributing this paper, which was to point out different methods of dispensing and to suggest an agreement. He was surprised that tragacanth should be suggested as a suspender for bismuth.

Mr. BARRIE thought they should always assume that medical men understood what they were about when prescribing.

Mr. THOMPSON gave it as his experience that mercurials in an ointment did not affect a steel spatula. In the absence of moisture or acid, flexible-steel spatulas coated with vulcanite answered well instead of a bone spatula.

Mr. HILL said his idea of Mr. Glass's object was to point out that the chemist in dispensing a prescription should note on the prescription the particular method he had adopted, and the excipient or suspending agent employed. By that means uniformity would be attained.

The CHAIRMAN expressed the opinion that many dispensing difficulties arose from unnecessary interference with the prescription. With regard to minims, he related an instance where a graduated measure was returned as inaccurate, the patient dropped ten drops into the measure, and found it did not correspond with ten minims. He advocated the use of crystallised phosphate of sodium as an ingredient in a powder, and said his experience was that the B.P. cantharides plaster was satisfactory. It should not be used too soon after being made, and improved by keeping. He disapproved of making seven suppositories when only six were required, and he was in the habit of mixing powders on highly glazed paper.

Mr. HILL next communicated a paper on

COPPER IN NUX VOMICA.

He reverted to the subject because of a note he communicated at an evening meeting two years ago having been traversed by Mr. David Hooper, of Calcutta. Mr. Hooper had in the interval stated that he had examined some nux-vomica fruits from Mysore. He "ignited two of the largest, and examined the ash particularly for copper. There was no trace. It is very evident that copper is not a natural constituent of strychnos-fruits." Mr. Hill said that since reading the original paper he had received communications from quite a number of pharmacists, stating that they had got the same greenish-blue mixture with a tincture of nux-vomica in which they did not find copper, and also that they had examined nux-vomica seeds, which gave no indication of copper. In several of these cases he had been able to show that the small trace of copper had been missed in the way he himself nearly missed it at first. Mr. Hill proceeded to state the results of experiments he had made with nux-vomica seeds, which he had just received from Mr. Alexander Meldrum, of Calcutta, grown in the Botanic Gardens there. Two full-sized seeds were incinerated, and the ash treated with boiling dilute sulphuric acid and filtered. The clear filtrate was divided into two portions. To one was added about half an inch of the finest freshly polished iron wire. A similar piece of wire

was placed for comparison in a smaller quantity of dilute sulphuric acid. In about two hours the wire in the solution of ash had a perfectly distinct coating of copper. After ten hours the coating was quite unmistakable and easily recognisable even by an untrained observer. After twenty-four hours the iron wire in the dilute sulphuric acid was entirely dissolved, but the coppered wire, being insoluble in dilute sulphuric, remained unchanged. To the other portion of the filtrate ammonia was cautiously added. A distinct blue tint was seen by two trained observers when the ammonia reached excess, but the blue tint speedily became imperceptible. It might quite readily have escaped notice altogether. That was quite in accordance with his previous experience. It was also confirmed by Vedrodi. An iron bunsen was used for incineration. He proposed continuing the investigation, but meantime there seemed conclusive evidence that some nux-vomica seeds did naturally contain copper, that the original statement of Meissner to this effect was accurate, and that the dictum of Mr. Hooper at least requires qualification.

The authors of the various papers received the cordial thanks of the meeting, and, this being the closing meeting of the session, a vote of thanks was given to Mr. Boa, on the motion of Mr. HENRY, for the kindly and genial way in which he had presided over the meetings during the winter.

COUNCIL PRIZES EXAMINATION.

Friday, April 18, 1902.

BOTANY [FOUR QUESTIONS].

(1) Explain how the starchy endosperm of a seed is rendered soluble for transmission into the embryo. (2) Describe fully the structure of an isobilateral foliage-leaf. What modifications would you expect to find in the leaves of moorland plants and in those of evergreens? (3) Give an account of the life-history of two of the following fungi: *Pythium*, *Penicillium*, *Claviceps* (ergot), *Erysiphe* (mildew). (4) Explain the morphology of the various fruits characteristic of the sub-orders of *Rosaceae*. (5) Compare the structure of a mature ovule of an angiosperm with that of a gymnosperm. Describe fully the process of fertilisation found in the angiosperms.

MATERIA MEDICA.

(1) What are the active principles of ipecacuanha, and in what proportion do they exist in the drug? Give a process of assay. (2) Describe the jaborandi-leaflets of commerce. Give the botanical and geographical sources of the plant yielding jaborandi folia. Name the active principles, and give a method of extracting the most important one. Mention any of the adulterants with which you may be familiar, and show the characters by which they may be distinguished from genuine jaborandi. (3) What are the characters of a good sample of opium? (4) How would you detect (a) Cotton-seed oil in olive oil? (b) Hard paraffin in beeswax? (c) Colophonium in balsam of Peru? (d) Turpentine in oil of lemon?

CHEMISTRY.

1. Give an account of the preparation and properties of the following substances:—Orthophosphoric acid, iodic acid, chlorine peroxide, sulphur monochloride.
2. What is the chemical character of clay, glass, blast furnace slag? Explain the chemical action which takes place when manganous sulphate is mixed with borax and the mixture fused on a platinum wire in an oxidising and in a reducing flame.
3. Explain by chemical equations the following analytical reactions:—(a) The solution of arsenious sulphide in ammonium sulphite, (b) the prevention of the precipitation of magnesium by ammonia when ammonium chloride is present, (c) the production of a precipitate and its solution in excess of the reagent when ammonia is added to a solution of copper sulphate, (d) the oxidation of a ferrous salt by nitric acid.
4. Explain the origin and meaning of Avogadro's hypothesis, and give an example of its application to a chemical problem.
5. Give an account of the preparation of lactic acid and of its synthesis. What are the chief reactions which lactic acid undergoes? How is the existence of the different lactic acids accounted for?
6. State briefly the experimental facts on which Kekulé's (hexagonal) formula for benzene is based.

EXAMINATIONS IN LONDON, APRIL, 1902.

THE Registrar of the Pharmaceutical Society of Great Britain has furnished us with the following list of persons

who have satisfied the Examiners at the recent Major and Minor examinations held in London:—

MAJOR EXAMINATION.

Candidates examined ...	...	...	...	42
„ failed ...	...	...	...	22
„ passed ...	...	...	...	20

Barritt, Percy, Streatham
Bennett, Reginald R., London
Cocking, Thomas T., London
Girling, William R., London
Hanbury, Frederick C., London
Hill, Arthur C., Manchester
Hills, James Stuart, London
Hole, William W., London
Hooper, Elsie S., London
Hunt, George P. A., London

Jones, John W., Dartford
Male, Charles Edgar, London
Neathercoat, Ernest T., London
Paterson, A. G. C., Scarborough
Phillips, Horace Stock, Wigan
Reavley, Robert, London
Robinson, R. A., jun., London
Smith, John B., Rusholme
Walker, George T., Birmingham
Young, William T., Leicester

MINOR EXAMINATION.

Candidates examined ...	...	...	...	315
„ failed ...	...	...	...	225
„ passed ...	...	...	...	90

Ashworth, A. E., Blackburn
Baker, Charles B., Nuneaton
Barker, Sidney F., Cambridge
Barrett, Walter Ernest, Leeds
Barritt, Edward C., Dalston
Brook, William B., Hereford
Bunnell, Albert E., Heywood
Campbell, George, Penrith
Carter, Arthur, Tamworth
Chesworth, C. P., Market Drayton

Colebrook, D., Shooter's Hill
Collitt, W. S., Northallerton
Davies, Henry C., Croydon
Delve, William H., Manchester
Edgar, A. H., South Norwood
Evans, John W., Rhudlan
Falding, Walter B., Wakefield
Fletcher, Edward N., Halifax
Foster, James, Ellesmere
Fry, Albert, Taunton
Gaze, J. E., Bury St. Edmunds
Glaholm, W., Hebburn-on-Tyne
Goodwin, F. J., Stafford
Goodyer, William, Weston
Gower, Percival T., Tonbridge
Graves, Herbert H., London
Hall, Henry, Cardiff
Haselgrave, E. E., Wakefield
Henchley, E., Portsmouth
Hickson, John Alfred, Malton
Hinchco, J. H., Stoke-on-Trent
Holden, Benjamin, Blackburn
Holding, Walter E., Audley
Holmes, Oscar D., Sheffield
Holt, William, Blackburn
Hornblow, Kate N., Charlbury
Hough, Bernard G., Sale
Hoyles, George Edward, Hull
Hurn, William Henry, Norwich
Jensen, H. R., New Brighton
Johnson, H. T., Pateley Bridge
Jones, Albert T., Cardiff
Kenway, Bertha Anne, Clifton
Leicester, Charles, Oldham
Lowe, Frances W., Bristol

Lyall, David W., Montrose
Mackay, Charles, Bradford
Marris, George W., Grimsby
Mathews, F. C., Cirencester
Miller, Benjamin, Darlington
Mortimer, Henry, Batley
Nash, Alfred Wilkenson, Deal
Northey, John Henry, Alford
Nowell, A. H., Birmingham
Oliver, Seth H., Holsworthy
Osborne, Harold E. C., London
Owens, James Alfred, Kingston
Paley, F. G., Aberystwith
Parson, Sydney J., Cambridge
Porter, George B., Driffield
Rees, Samuel T., Carmarthen
Reynolds, Benn R., Narbeth
Roberts, Arthur J., Falmouth
Rothhouse, Lewis, Leicester
Senior, Herbert Clare, York
Sewell, A. E., Peterborough
Slight, Harold, Nottingham
Sloman, Courtenay, Torquay
Smith, Philip S., Market Rasen
Spicer, William S., Dorchester
Spruce, Charles F., Llandudno
Spurin, Stanley R., Plymouth
Starmer, G. F., Tunbridge Wells

Sumption, W. C., Blackwood
Sykes, Archibald, Oulton
Talbot, John, Blackpool
Taylor, Walter P., Wellington
Todd, John, Cockermouth
Tracy, Charles H., Dorking
Trott, Edward Henry, Bolton
Twidale, Herbert, Newark
Waugh, Herbert L., Halifax
Williams, Arthur, Hayle
Willis, Francis E., London
Wilman, Francis A., Bradford
Wilson, William D., London
Wreathall, Robert D., Hull
Yates, Francis H., Blackpool
Yates, Henry Henley, Swinton
Yeomans, F. A., Warrington

Examination Experiences.

THE following are selections from the experiences of candidates at the recent Minor examination:—

My first subject was practical chemistry. "Find the percentage of iodine in a strong solution by means of $\frac{N}{10}$ thio." As the iodine was stated to be strong, I diluted it and used it to titrate the thio. The results of two independent determinations came out very closely, one being 3.999 per cent. and the other 4.002 per cent. The salt to analyse was ferri sulph. and pot. nit., but I had no time for confirmatory tests. In dispensing I had a cannabis-indica mixture, which, thanks to the "Art of Dispensing," gave no trouble. Pills containing ferri sulph., ext. aloes, and extracts were soon disposed of, although the silvering did not turn out very brilliant. A percentage solution and 150 grammes of ung. hydrarg. nit. completed this subject. The examiner wished me to make the ointment in a mortar, and seemed quite disappointed when I asked for a jar. A day or two afterwards I presented myself for the oral examination. I had first to go to Mr. Harold E. Matthews for "scrips." He gave me a long English prescription to translate into full Latin, two or three autograph ones also into full Latin, a percentage calculation, and a lot of doses. My next subject was pharmacy, with Mr. Edmund White. His first question was, "Have you ever made any of the extracts of the B.P.?" I replied that I had not. He then asked me if I had made any of the tinctures, to which I replied I had made most of them. He took me through the tinctures, asking reasons for methods of manufacture, doses, and strengths. Professor Thomson next took me in chemistry, asking me about acetylene, benzene, and most of the laws of chemistry in the Minor syllabus. It was altogether a very pleasant quarter of an hour. Mr. Marsden next examined me in materia medica. The specimens I was asked to recognise included kino, Tampico and Vera Cruz jalap, strophanthus-seeds, lupulin, kamala, squill, pareira, cane sugar, milk sugar, arca, black pepper, &c. Mr. Holmes took me in botany. A stem of a gymnosperm T.S. was the first thing shown. Was I quite sure it was not a root? A rhizome, branch with phylloclades and a compound leaf came next. He then showed me a daffodil and a hyacinth. Did they belong to the same natural order? Why not? Branch of a labiate in flower, and the inflorescence of a composite, completed the list. After a few more questions on absorption, assimilation, transpiration, and respiration, I was told to go and sit down. Soon after I was seated I was called up and told I had passed a very creditable examination.

LONDONER. (22/4.)

I commenced with dispensing; the paper read as follows:—

Make 200 c.c. syrup. ferri iodi. Send in a tared flask.

Potass. iodi ...	...	...	...	3ss.
Tr. guaiaci ammon. ...	...	...	...	3iv.
Tr. cinchonae ...	...	...	...	3iv.
Mucilag. ...	...	...	...	q.s. (3vj. used)
Aq. ad ...	...	...	...	3vj.

M. Ft. mist.

Sig.: $\frac{1}{2}$ bis die.

Hyd. perchlor. ... gr. j.

Ft. pil. xxx. Varnish.

Sig.: 1 ter in die.

Suppos. acid. tannic. vj.

1 every night.

Send a blister, 4 x 2.

Practical chemistry followed, with the estimation of the strength of a solution of H_2SO_4 by means of $\frac{N}{10}$ NaOH solution, and a salt, which proved to be a mixture of bismuth oxychloride and strontium carbonate. On attending for the oral examination a few days after, I was called for prescription-reading first, and then to chemistry, which was commenced with an assurance that the first day's work had been very satisfactory, followed by a discussion of the oxides of chromium, chromates, bichromates, oxidation and reduction aldehydes, alcohols, phenols, and nitro compounds. Then came a few questions on the balance, and that was over. I was next sent to botany and commenced with a flower to refer to its natural order (*Rosaceae*). I then gave the distinguishing features of the order, and was shown a piece of wood and asked to describe the annual rings and wood-vessels, and another piece with scattered bundles (a monocotyledon). I then described a few slides, and recognised a piece of fresh fennel, which concluded the botany examination. The next subject was materia medica, and I started by being asked to pick out the English aconite, and, after discussing this, kousso, hyoscyamus, jaborandi, and the opiums, also simarubra bark were given a little attention. Lastly, I was sent to pharmacy, and I went into the preparation of tr. opii, tr. camph. co., and vin. ferri, concluding with ol. ricini and the distinction between fixed and volatile oils; and then came at last the congratulation by the President. L. R.

THE demand for perfumery is rapidly increasing, says the American Consul at Suatow, and the article commands rather high prices. The two kinds of perfumery most in evidence are the French perfumes of Ed. Pinaud and the American perfumes of Colgate. Nearly all of this perfumery is in small bottles, up to 4 oz., a bottle containing 2 oz. selling for \$1.50.

At a recent meeting of the Royal Academy of Medicine in Ireland Mr. G. J. Johnston read a paper on a case of swallowing of a metallic denture successfully treated by the internal administration of cotton wool. The denture seemed to be situated in the pyloric end of the stomach and sandwiches containing a thin layer of cotton wool in each were administered. A week after admission an aperient in the shape of 3ij. pulv. glycyrrh. co. was administered, and the denture was passed in the faeces rolled up in cotton wool.

Pharmaceutical Education.

The Views of the Students.

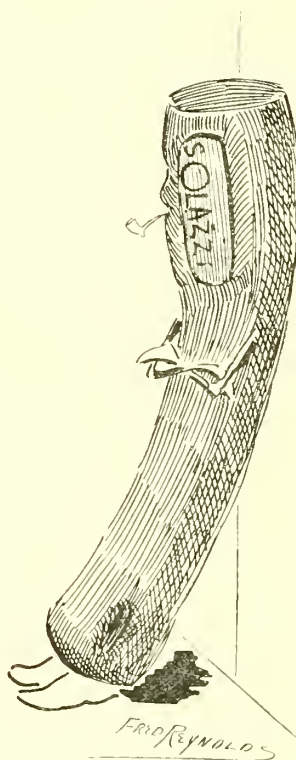
AT the present time, when the question of the future of pharmaceutical education and examination is apparently fast approaching a crisis, it may be permitted to a student, who has had good opportunities of knowing the feelings of the pharmacists of the future on this subject, to put into words briefly the opinions of those most nearly concerned with the suggested changes. The subject resolves itself into three main divisions—viz., the Scottish university degree, the division of the Minor, and the compulsory curriculum.

English students do not concern themselves greatly with Scottish degrees, and never will; many, of course, would not take advantage even of an English degree in pharmacy; but this much is certain—that if the University of London, which has already recognised Professor Greenish as a teacher of pharmacaceutics, were to allow that subject to be taken, with chemistry and botany, in the Final examination for the ordinary B.Sc. degree, a large number of Major men would assuredly be induced to proceed to such a degree. This is an end for which the Council of the Society and Professor Greenish will doubtless work; and if the example of the Scottish University be likely to weigh with the London senate at South Kensington, English students will on that account, as well as on other grounds, heartily welcome the adoption of Mr. Tocher's suggestions.

To the Vice-President's dictum—that division of the Minor is not wanted by students—strong exception must be taken. The writer is in a position to state that this is a "consummation devoutly wished for," not only, though no doubt partly, because of the feeling that the examination would be easier to pass if divided, but it is almost universally held among students, as among the majority, surely, of their seniors, that a divided Minor would be at once fairer to the candidates and safer for the public interest. Writing as one who went through the ordeal less than a year ago, the writer can positively say that the sudden change from chemistry to pharmacy, and from pharmacy to botany, and from botany, perhaps, to prescriptions in the examination-room is itself very trying to the candidate, and is often fatally disturbing to the naturally nervous man. The argument that students would come up better prepared if they had fewer subjects to tackle at a time has already received sanction in the highest quarters, and need not here be entered into; suffice it to say that the truth of the argument is quite patent to students themselves.

With regard to the third and greatest educational problem—that of the "compulsory curriculum"—there is among students the greatest diversity of opinion. Even at the "Square" school, where students do voluntarily undergo a nine months' course of study for the Minor, it appears that by no means all are in favour of making such a course compulsory. At the other colleges it is even less desired; but so long as men continue, as is not infrequently the case, to "fluke through" the Minor after three months' work or less, so long will others try to do likewise, and will resent the enforcement of a further period during which money has to be spent, and not earned. If it be permitted to one of the youngest members of the Society to suggest a remedy, it is this: By some alteration of system (which should not be impossible to the body of experienced men who constitute the Examining Board) eliminate the present element of luck from the examination, so that the badly trained will be rejected as surely as that the well-trained man will be successful. Then, and then only, will the average student accept with composure the enforcement of a curriculum, and it will be just and equitable to enforce it. In spite of the statement by Mr. Allen at the Council last week, it is a fact, well known to lecturers at the schools, and emphasised lately by Mr. Grier, of Manchester, that under the existing system the Minor does not effectually separate the sheep from the goats. The question of fees and educational expenses need not be touched upon; but as things are, pharmaceutical students cannot be expected to be capitalists; and it is considered that the expense attending a curriculum would be no more than the average expense in which students are at present involved.

Things that Happen—Sometimes.



So Lazy!

(A Study in Pronunciation.)

From the sunny Spanish shore
(Think I've heard that said before),
Where you many a swarthy lass and lad see
Gazing each in other's eyes,
'Neath the blue and brilliant skies
Of my far-off home in mythical Sol-azzi;

Come I, glistening bright and black,
Keen to fill the chemist's lack
Of an adjuvant; and soon adorned and gauzy,
In the counter-case I'm laid,
And triumphantly displayed,
With an ornate ticket labelled "Prime Sol-azzi."

But the enervating clime,
Where I flourished in my prime
(And of which my recollection is but hazy),
Left its imprint on my frame,
And Sol-azzi is my name,
For my nature is so lazy, O Sol-azzi!

A MEDICAL CONGRESS is to be held in Cairo from December 19 to 23, 1903.

DETECTING HUMAN BLOOD-STAINS.—A new use for rabbits has recently been discovered by a couple of Parisian medical men, who have given the results of their experiments to the Academy of Medicine in Paris. The serum of human blood, it seems, if injected into the veins of a rabbit is death to the rabbit; but if given in small at first but gradually increasing doses, the rabbit becomes immune to the poison. The serum of a rabbit so treated will then, when brought into contact with human blood, give under the microscope a characteristic precipitate which will enable the expert to recognise whether a blood stain is composed of human blood or not. Hitherto there has always been considerable difficulty in deciding as to whether blood-stains are, or are not, composed of human blood, for though the difference between the corpuscles of birds and mammals could be accurately determined, it has been impossible to distinguish between the globules of a man and those of a dog or a rabbit, a question of importance frequently arising in criminal cases.—*Truth*.

Observations and Reflections.

By XRAYSER.

The Pharmacy of the British Empire

(including for the present purpose Paris and the Riviera) was marvellously illustrated in the last *C. & D.* What a vast field for our industry lies before us! I know how inferior we British chemists and druggists are to the continental pharmaciens and apothekers, but we can nevertheless show these gentlemen something in the way of running businesses. Witness those illustrations of Bombay pharmacies, and many others in India and the colonies that have been published from time to time. Assistants, I note, are discussing whether they are paid as much as they deserve when they go abroad. Of course they are not: very few of us are properly appreciated. But they get the market-price, and they get what is better than cash—experience and education. Apparently they are wanted in most parts. "It is difficult to get assistants to come to India"; "good assistants are not easily obtained for Paris"; "qualified men can always get good berths" in South Africa. These are quotations from last week's articles. But all those countries want good men; and the difficulty is for a young man to know if he is a good man or a duffer. In the latter case, he is not wanted in British pharmacies abroad. So, too, if he makes a friend of the bottle: he had better go to the bad at home. But why the intelligent, temperate, and qualified young chemist, with no particular home-ties, should miss the chance of seeing the world which so cordially invites him I do not understand.

A Wider Basis of Taxation,

a phrase which, I fancy, Sir R Giffen has made familiar to us, is apparently the policy which has attracted Sir Michael. It is wonderful how phrases rule the world. Free-traders themselves carried on their great struggle and won their victory by the aid of half-a-dozen phrases. This one, suggestive of the soundness and substantiality of the pyramid style of architecture, attracts support as soon as it is uttered. But probably the Chancellor of the Exchequer himself, who is financially sound at heart, has discovered by this time that in seeking to spread wider the basis of taxation, he is actually only building pyramids the wrong end upwards.

Last Year,

after he had imposed the sugar-tax, Sir Michael learned to his astonishment that a lot of things imported contain sugar, and that all these would have to pay. Then he had to cram up enough information about the polariscope and the saccharometer to beat off his questioners in the House of Commons, the Customs officers meanwhile widening out the pyramid from the apex of the sugar-duty which the Legislature had agreed to. We have had a similar experience this year. "Flour and grain" were what the Chancellor proposed to tax, and when a day or two later he was asked if that expression included arrowroot, and macaroni, and rice, and a lot of other things, he made it manifest that such a development of his tax came as a surprise to him. But the Customs were ready the next morning with their list.

Protective Duties

of any kind are bound to expand in that way. Agriculture has got its toe in this year. The sugar-refiners, I notice, are discontented because the sugar-tax was not increased. Sir Howard Vincent sees in these taxes the

promise and potency of the protection of British hardware. When that is attained chemical-manufacturers will have good cause to complain if they have to pay more for their pots and pans, and their own products are left uncared for; and so on in ever-widening circles. A poor way of helping British industry in its contest with the world. In the *Pharmaceutical Journal* for August, 1842, a list of the duties chargeable on drugs, according to a revised and simplified tariff, appears. It occupies seven pages, and even then includes such comprehensive lines as "drugs not enumerated, 2s. per cwt.," "oils not enumerated," and so forth. The wholesale druggists' club of that day did its best to resist sacrilegious interference with this precious tariff. Let modern wholesalers try to realise what such a condition of things would mean to their modern businesses. To specify only one inconvenience, it may be mentioned that it was a common occurrence to pitch damaged or low-quality drugs into the sea rather than land them, because it was certain that they would not sell for the cost of the duty.

There may be a Suspicion

of a free-trade bias in the preceding paragraphs. Perhaps I may counteract this by advising reference to a clever, but, in my opinion, a fallacious, presentation of the other side in the essay entitled "How English Trade is Crippled," published last week by the Vinolia Company (advt., page 91).

Grocers should be Grateful

to their trade organ. The Editor of the *Grocer*, commenting on the Budget, congratulates himself, with the natural pride of a man who has served his generation, on his foresight. "The warning we gave the retail trade to be prepared for all eventualities has been proved fully justified," he says. It has; but I should like to ask how a tip of that comprehensive character could have possibly failed?

Mr. Austen,

in his very interesting sketch of "Old Sheffield Druggists," refers to diascordium, which, in the earlier half of the last century, he tells us was made and sold in large quantities by the chemists of Sheffield. I presume it was so known, and perhaps labelled; but I have never seen the syllables of diascordium so divided before. A young pharmacist who talks glibly of phenylacetamide tells me he never heard of diascordium. And yet in pharmaceutical history it was not a bad second to theriacum. Of course, originally it was a preparation of the scordion or water germander. I am not sure how or when it drifted into an opiate. My own ancient recollection of it is that we prepared it extemporaneously when it was asked for by adding 1 drop of essence of peppermint to $\frac{1}{2}$ oz. of syrup of poppies for a penny. The Sheffield chemists seem to have made it more scientifically. I suppose it has been elbowed out of pharmacy by Mr. Steedman and Mrs. Winslow.

A Word of Sympathy

with the Editor of this journal may perhaps be admitted into this page. He has suffered a heavy affliction by the loss of a beloved daughter, a young lady of singular promise, just as she was crossing the line which separates girlhood from womanhood. At the most famous of girls' colleges in London she had for several years literally swept the board of first prizes and scholarships, and last June matriculated with honours at London University. Only a word like this is permissible here; but there are few who will not appreciate how much this little paragraph covers.

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Are we Decadent?

THE famous French critic, M. Henri Taine, hardly exaggerated when, in his "Notes on England," he described this country as the breeding-ground *par excellence* of sects, factions, and societies. And there is an element of truth

overlain by the caricature of his statement that the Englishman who is big with an idea or grievance hastens to deliver it as a letter to the *Times*, or embodies it in a new society; indeed, of the making of societies there is no end, and the obscurest and feeblest of them pretends to enjoy exuberant health and prestige, forgetful of the fact that the journalistic and official reports of the transactions of all public movements are apt to be meretricious, especially if the reporter is also an officer of the Society. A report sometimes does less than justice to a meeting, and it never adequately reproduces the life and colour of the original. In many cases, however, the record charitably embellishes the facts, so that in general there may be as little resemblance between the narrative and the reality as between the flowing periods of a *Times* version of a Parliamentarian's speech in the House and the staccato and ungrammatical sentences of the "orator." These general observations have a particular application to the Pharmaceutical Associations of every description which are just bringing the winter session to a close with the time-honoured ceremonies of drum-beating, trumpet-blowing, and marching and countermarching of stage-armies. As far as appearances go every Association is more sound and successful than ever, and there are more of them in connection with the drug-trade than ever there have been before; yet it is an open secret that for the past decade or so it has not only become more and more difficult to form new associations, but also that it actually requires great and continuous exertion to prevent the hitherto stable old organisations from falling to pieces. In view of the greater number of Associations, and, to us, the most evident fact that reports of their meetings occupy six times the space that was given to such matters ten years ago, it appears ridiculous to say that matters are worse than they were. Yet they are. In most parts of the country, and in the largest centres particularly, there is the same dismal complaint of lessening membership and revenue, meagre meetings even for important and urgent purposes, and a paralysing apathy towards all questions of pharmaceutical science, politics, and economics. According to accounts untainted by illusions of memory, the average pharmacist of the present day does not compare favourably in this respect, in spite of his educational superiority, with his predecessor of twenty or thirty years ago, who took an active and intelligent part in the public affairs of his craft, and was an occasional and often effective contributor to its technology. At that time in all the populous centres there were powerful and vigilant local associations under whose *agis* uniform prices and collective action for the vindication of trade interests were ensured. Now these Associations are mostly dead, moribund, or in a state of suspended animation which 'twere flattery to call "masterly inactivity." How can we account for the decadence? In the first place it is obvious that the causes are general, and not special to pharmacy, although the present condition of the latter is an instance of the prevailing process. There has been a marked decline in the intellectual life of the nation for some decades past, as shown by the growing passion for the frivolous and the base in politics, literature, and art, and the individual craving for morbid excitement in the form of so-called "sport." Notwithstanding the influence of compulsory education the skilled artisan of to-day is a less virile, capable, and cultured type than the handicraftsman of the early decades of the nineteenth century who figured in the great political and social reform movements of that period. We seem to have identified a *causa vera* of this degenerative change, in the observation of the fact that, whereas the old handicraftsman—*e.g.*, the hand-loom weaver—was master of

his machine and art, his successor at the power-loom is a mere detail in the mechanism of the industry, often with little more intelligence and initiative than the loom which he tends. There can be no question that the first effect of the division and sub-division of labour, and the displacement of manual work by machinery, is to emasculate individuality by starving the mental and moral nature. In the sphere of pharmacy the influence of this factor can be clearly traced. No one regrets the relief from the drudgery of pill, plaster, and galenical making in the back-shop; yet the drudgery had its compensations, and was often a liberal education in the exercise of patience, industry, and self-reliance. The misfortune is that the pendulum has now swung as far on the other side, and the sub-division of labour is nearing the point at which it threatens to extinguish the individuality of the pharmacist by sinking it in that of the mere distributor of commodities—a condition that would inevitably tend to deprive him of all incentive to independent thought and action. In this connection the latter-day tendency towards the consolidation of business undertakings into "syndicates" and "combines" has also had a pernicious influence. The employé of the big concern is liable to demoralisation from two sources. First, he is the victim of excessive sub-division of labour; and, secondly, his course with a large body of fellow-employés is apt to be unsettling, rather than inspiring, and to give him a bias towards social or convivial pleasures to the detriment of his intellectual interests. The increasing pressure of modern business life is another potent factor. The general experience seems to be that it is harder to make a decent living in business than formerly, although in respect of hours and work we seem to be in no worse a plight than our predecessors. The human being, as an energy-transforming machine, is only capable of doing a definite amount of work, and, if the energy is consumed in muscular effort, in prolonged attention to detail, in strenuous and harassing devotion to business, or is dissipated in idle amusement, it is not available for public-spirited action for the common good, or for pursuit of knowledge for its own sake.

If we have interpreted the facts truly, the conclusion of the whole matter seems to be not that human nature is decaying, for that is an incredible supposition, but rather that we are passing through a transition stage, in which economic change and industrial expansion have proceeded so rapidly as to displace and strain the intellectual energies and interests of the individual. If the immediate prospects of readjustment and recuperation are not brilliant, we still have a reasonable faith that ultimately the resources of civilisation will restore the balance, and that with an unavoidable recasting of their programmes, and devolution of their work into local and general, chemists' associations will flourish again in actuality rather than in printed reports.

The Turpentine Industry.

HIS MAJESTY'S CONSUL at Charleston throws some light on the condition of the oil-of-turpentine industry in the United States in a report just issued by the British Foreign Office. It is well known that the old process of collecting crude turpentine by "boxing" the tree is very wasteful and destructive, for it has devastated many forests in certain Southern States, and thousands of acres of old turpentine lands have been thrown away for want of a more enlightened method of collection. This has led to a transition of the business to Georgia, Florida, and Alabama, now the principal centres of the industry. Professor Charles H. Herty, of Georgia State University has experimented with the view of ascertaining if there is not a better method of collection

and distillation, and it is hoped that the U.S. Government will co-operate by devising rules for the protection and preservation of the pine-forests, or even establish an experimental turpentine-farm for the purpose of gathering information and utilising to the best advantage all pine-products. It appears from the report that the trade in turpentine oil and allied products in 1901 was not so advantageous to farmers and dealers as might have been expected from the high range of prices. Indeed, the opinion among the naval store factors was "that the trade would have been in a much better condition generally had the high price of 54c. per gal. for turpentine never been seen." They believe that an average price enabling the operators to reap fair profits would have prevented the over-production which had such a prejudicial effect on the trade everywhere. As it was, many dealers lost their heads and an enormous crop was produced, resulting in a demoralised condition of the market. A new development in the business last year was the organisation of the National Tank and Storage Company of Savannah, which has built large tanks for holding oil of turpentine at the railway termini, the idea being that shippers will take advantage of storing their supplies in them, and thus wait the market if necessary, while the company gives warehouse receipts upon which owners may obtain advances from the banks.

For some time past there has been an upward movement in the turpentine-market, which appears to have been engineered by some of the large traders in Savannah. Very high prices—namely, 52c. to 53c.—have been quoted from that port, but 45c. to 47c. appears to have been the highest figure paid, and at present there are many buyers both in London and New York who are afraid to trust the market at this level, especially as the season has just opened. Advice to hand this week report a drop in the market to the extent of 8c. per gal. This is tantamount to a confession of failure on the part of operators to sustain the "bull" movement. The situation, however, cannot be described as "weak," as there is expected to be a 10-per-cent. shortage in the new season's crop, and heavy rains in the turpentine country have prevented extensive work. It is also stated that operators intend to curtail production in the interest of higher prices, but that statement must be accepted with reserve, as there is no combination or syndicate among the operators to control the output. Many of the best holdings have lately been acquired by some of the large and influential holders, who in turn lease them to the operators. In Florida recently considerable lands have been acquired by Savannah factors, who intend to work them when their Georgia holdings decline.

The receipts at Savannah from April 1 (the beginning of the season) to December 31, 1901, were 300,343 barrels of turpentine oil and 958,327 barrels of resin, and the exports during the same period were 274,225 barrels of turpentine oil and 778,105 barrels of resin. Of the exports, 198,992 barrels of turpentine oil and 363,611 barrels of resin were shipped to foreign countries, and the rest to American ports and interior places by railway.

Last year witnessed a decided improvement in the system of transportation of turpentine oil to foreign countries. Formerly it was principally carried by sailing vessels, but now tramp steamers have secured the bulk of the carrying business, which means quick deliveries and low freights.

Companies as Persons.

THE Divisional Court has refused to allow limited companies to escape the provisions of the Sale of Food and

Drugs Acts. Some months ago the Richmond Magistrates overruled an objection taken to a summons against Messrs. Pearks in connection with their milk-blended butter, to the effect that the word "person" in the Act does not include a limited company. About the same time the Southampton Bench upheld that contention, and dismissed a summons against a limited company in regard to a sale of milk, on the ground that corporations are outside the Act. Both decisions were appealed against, and by a singular coincidence they came before the High Court on Wednesday of this week. The main authority relied upon by counsel for Messrs. Pearks was the case that decided the company-pharmacy question—the *Pharmaceutical Society v. the London and Provincial Supply Association (Limited)*. The decision in that case was freely discussed by the three Judges and counsel on both sides, but it did not appear to have any very direct bearing on the decision in these cases. The interpretation Act, 1891, enacted that where in any Act creating an offence punishable on indictment or summarily, the word "person" is used, it must be held to include a corporation, unless the contrary intention appears. The companies in these cases said the contrary intention did appear in the Sale of Food and Drugs Acts. The "person" of the Pharmacy Act, they said, is an individual who can pass examinations, and companies are not that sort of person. The "person" of the Sale of Food and Drugs Acts is an individual capable of being sent to gaol for a second offence. Under Section 3 companies cannot pass examinations, and are consequently outside the Pharmacy Act; companies cannot be sent to gaol, and are therefore outside the Sale of Food and Drugs Acts, is, roughly put, one of their main arguments. It is a defence under one of the sections for the "person" charged to prove he had no guilty knowledge of the act complained of. Companies, counsel contended, could not have knowledge, guilty or otherwise; therefore the Legislature could not have meant to include them in the word "person." Then came the argument so fatal in the Pharmacy Act case. The act complained of is the physical act of a servant of the company, and though the company may not be amenable, the offence can be reached by a summons against the servant, and if there be a conviction, the companies would, of course, be the people who would pay, said counsel. It is significant that the Lord Chief Justice and Justices Darling and Channell attached very great importance to the point raised. Though it was well argued in the first of the cases, they postponed their decision until they had heard the other case later in the day, in order that everything that could be said on either side should be before them, and they subsequently delivered judgments on the point. Mr. Justice Channell put the matter very clearly. Criminal offences requiring "mens rea" cannot be committed by corporations. Section 6. of the S. F. & D. Act prohibits absolutely a certain act being committed. No one must sell to the prejudice of the purchaser an article different from that demanded—he must not do it innocently even. To do so is a quasi-criminal offence of such a character that a company can commit it. By the hand of their servants they can sell, and as an individual master is under the Act expressly liable for the acts of his servants, a company ought to be, and is, equally liable. The Lord Chief Justice expressed his satisfaction at being able to come to that decision, for, he said, if they had been compelled to otherwise decide, grave difficulties would have been placed in the way of administering the Act. It would often, he said, be extremely difficult to bring the offence home to the actual offender. Most people will share his Lordship's satisfaction. If the London and Provincial Supply Association case was being heard to-day, instead of

thirty years ago, it is not improbable that a different decision would have arrived at; and if ever a company-case under the Pharmacy Act arises which can be differentiated from the old case, the Society might do worse than spread a little milk-blended butter on it, and try the Courts again.

COUNCIL ELECTION COMPETITION.

There is so little interest this year in the election of the Council of the Pharmaceutical Society of Great Britain that we almost hesitate to start a vote by our subscribers and their employés or members of their families on the event. However, it may give them some amusement (and the guinea which we set aside as a prize) to arrange the surnames of the ten candidates in the order that they will appear on the poll. The candidates are as follows:—

A. S. Camplin, Cambridge
M. Carteighe, London
W. S. Glynn-Jones, London
J. F. Harrington, London
J. Harrison, Sunderland

J. W. T. Morrison, Tring
C. E. Pickering, London
C. J. Park, Plymouth
A. Southall, Birmingham
J. R. Young, Warrington

Those whose names are in italics are not at present on the Council, the rest are. Postcards should be received not later than Monday, May 19. They should be marked with a large A on the top at the back.

HALF-A-GUINEA

will also be awarded to a reader of the *C. & D.* who sends us before May 13 the best reasons on a postcard for rejecting any three of the ten candidates. Also half-a-guinea for the best reasons why any of the three new candidates should be supported. The reasons against postcard should be marked B, and reasons for C.

TESTIMONIALS TO ASSISTANTS.

A subscriber calls our attention to a correspondence he has had with an applicant for a situation as junior assistant, and with his recent employer. The young man, who wrote in the style of a boy of 10 or 12, was really 18 years of age, and had been a little over two years at the business with a pharmaceutical chemist, whose letter in reply to our subscriber gave the lad a rather flattering character. This seemed so inconsistent with the lad's illiterate letter that our subscriber asked why so desirable a young man had left the Ph.C.'s employment, whereupon he was informed that the lad had been taking things out of the shop without his employer's knowledge. We feel that although the testimonial was given out of pure good-heartedness this sort of thing is a distinct injustice to the trade at large, and we hope this note may be the means of furthering more straightforward dealing between chemist and chemist with regard to recent employés.

"BIRMINGHAM CHEMISTS, BEWARE."

Our occupation is threatened: the *Birmingham Daily Post* has discovered that Inland Revenue officers are on the war-path, and paying particular attention to Birmingham chemists just now. So our contemporary prints a little article under the above heading. There is nothing in it which has not often been told in these pages, but it may be of interest to show how the matter strikes a stranger to the subject:—

It is the practice (says the *B.D.P.*) of a large number of chemists to prepare and vend specifics of their own manufacture, and, consciously or unconsciously, some of them are avoiding the Government impost on such wares. That many of them sin in ignorance is not at all improbable, considering the difficulty which occasionally arises in the determination whether the medicine-stamp is requisite or not. Even the authorities, it would seem, are not without their doubts at times, for there are instances recorded in which Somerset House has on occasion held a liability to attach to labels which had been previously passed as outside the scope of the Act and *vice versa*. Broadly speaking, the chemist may be said to incur responsibility for the duty when he retails medicine in respect of which he claims a proprietary right or any secret or art of preparation, when the sale of the

article takes place under the authority of letters patent, or when any recommendation in its favour is held out to the public to induce them to purchase. Of these regulations perhaps the last-mentioned is that which most frequently lands the seller in trouble. . . . Chemists are occasionally caught napping through the display of a seductive showcard in their window, relating to some particular remedy which they are offering to the ailing world. The Inland Revenue is empowered to exact a penalty without recourse to a court of law, and as a rule the offender expiates his sin of omission in this way. He pays his guinea, or whatever the sum may be, and thereby discharges his debt to the law. Otherwise police-court proceedings invariably ensue. So far as can be gathered, prosecutions of the kind in question have been few in number in Birmingham during recent years, though in this respect the city, it is said, has far from an immaculate past.

This last touch is so delightfully satirical that we expect the Midland Chemists' Association to rise up and defend its purity.

CANCER-RESEARCH.

The investigation of cancer has been discussed by a medical contributor of the *Times* during the past week, and indications are given of the difficulties by which the work is surrounded. The resemblance between sarcoma and carcinoma renders it necessary that both diseases be studied, and the affinities of cancer with other diseases, such as tumours and tuberculosis, will have to be gone into. Then, again, there is the theory of the constitutional origin of cancer, and the geographical distribution of the disease to consider. Charts and statistics seem to show that cancer is in some way related to the soil, and that it prefers clay and alluvial deposits to gravel and elevated land. There is evidence also, which cannot be discarded altogether, that the disease occurs more frequently in certain villages or groups of houses, and it has been supposed that the water-supply may be in some way concerned with this strange visitation. The doctrines that emphasise the influence of environment must be checked by such facts that the disease may appear as the result of an injury, and that it has many affinities with diseases that have nothing to do with environment. In the majority of cases cancer shows no power of retrocession or natural cure, nor has it been altered by medical treatment, but occasionally it is recorded that the disease has at last tended, at least for a time, to get well of itself. Such cases may be brought into line with researches in immunity and immunisation. There is also some evidence that certain forms of the disease may be influenced by the action of organs in parts of the body remote from the disease. After discussing the doctrine of the external origin of the disease as one which may be taken as a working theory for the present, two things are emphasised—first that secret remedies, quack medicines, and the like "cures" for the disease are at best entirely useless, and often seriously harmful, and that to prescribe for the cure of cancer stuff like Mattei's fluids and Radam's microbe-killer is to practise on human credulity; next, that, if only all cases of the disease were at once subjected to operation in the very first stage, a considerable number of them would be absolutely and permanently cured. It is the freedom from pain and apparent insignificance of the disease at first that cause the delay till it is too late for surgery to be successful once and for ever.

NOT RETALIATION, ONLY—

The recent decision prohibiting the import of preserved meats and foodstuffs containing boric acid into Germany has aroused the ire of the country of canned goods. It is now announced that the investigations of the Bureau of Chemistry of the Agricultural Department at Washington have proved that a large percentage of the beers, 83.9 per cent. of the canned meats, sausages, &c., and about 20 per cent. of the fruits now imported from Germany into the United States are preserved with boric acid. And so America proposes to apply the *tu quoque* principle to Germany—"not through any spirit of retaliation," it is carefully explained, "but simply

as a protection to the American manufacturer and exporter." But America, as usual, will go one better. For Professor Wiley, chemist of the Department of Agriculture, has reported that the paint used in decorating toys imported from Germany contains, in many instances, a harmful amount of lead. Some of the German toys even bear arsenical paint, another authority says; and the drugs exported from Germany are not as pure as they pretend to be. Steps are to be taken to have these things rectified, and lively times may be looked for. The plan proposed is to apply to importations from foreign countries the law made by the respective Governments to control the purity of the food-products for internal consumption. There is a certain element of fairness in this proposal, for, as Professor Wiley points out, the laws of Germany and certain other foreign Governments (England and France included) allow the exportation of bled food-products, while providing stringent regulations prohibiting their use in the country of origin. But how the plan will work remains to be seen.

"MINOR" PARAGRAPHS.

Brief notices in local newspapers regarding some of those who have passed the Minor examination are exceptionally frequent this month. The most striking one is the following:—

THE FIRST LADY CHEMIST IN ENGLAND.

The Pharmaceutical Society have granted a certificate of registration as a chemist to Miss Hornblow, an assistant to Mr. G. C. Rowo, chemist, of Braintree. Miss Hornblow, who is only twenty-one years of age, passed successfully through all the examinations, and thus becomes "the first lady chemist in England," we are told; but lady dispensers are surely no novelty?

We do not quite know what "the first lady chemist" means, but there are several Majors in the ranks of the fair, and we fancy this is simply a case of the "last" being "first."

The Adulteration of Shellac.

By E. J. PARRY, B.Sc., F.I.C.

AS the analysis of shellac is at the present moment attracting some attention, and users of the article are beginning to realise that adulterated shellac is the rule rather than the exception, there are several points to which it may not be amiss to call attention. Since writing the note which appeared in this journal (October 26, 1901, page 689), I have examined a large number of samples of shellac, the majority of which were clearly adulterated, and a small number of them were certainly pure. When a sample was obtained of undoubted purity, I have taken the opportunity of making from it samples by adding definite amounts of common resin, so that, except for the small alteration in percentage composition that takes place during melting, I had a series of samples of known composition. The utility of agreement on a standard method of determining the amount of adulterating resin in the case of a body of somewhat variable composition need hardly be insisted upon; but as I have seen certificates by analysts of repute in which results varying by over 5 per cent. were recorded for absolutely identical samples, the exact method of calculation should be agreed upon.

There can be no doubt that many of the statements recorded in various works are quite useless as a guide to the analyst. The solubilities given by Dieterich in his "Analyse der Harze," and to which he appears to attach importance, are, for analytical purposes, in my experience useless. In dealing with a mixture of resins which have been melted together, if one is practically insoluble in a given solvent, the powdered resin is protected to a very great extent from the

action of the solvent even when a considerable amount of a soluble resin is present. The protective action depends to a great extent on the fineness of the powder, but I am convinced that no solubility determinations yield anything like quantitative results. Nor can the constants quoted be relied upon, as many of the samples dealt with are unmistakably adulterated. For example, in that useful little work by Lawkowitzsch which has recently appeared ("Laboratory Companion"), one sample only of shellac is quoted, but from the figures given it was clearly adulterated.

My own experiments point to the determination of the iodine-absorption value as by far the most reliable of all methods for ascertaining the amount of common resin present. So long as the conditions of the determination are kept constant very concordant results can be obtained. No pure sample that I have examined has given figures anything like so high as those so often quoted, and with experimental mixtures the results are more concordant than those obtained by the determination of the acid and ester numbers. Of adulterated samples which I have met with during the last few months, many contained from 20 to 35 per cent. of resin and some over 40 per cent.

Trade Notes.

MR MAX PHILIPON, 3 Savage Gardens, E.C., has been appointed agent in this country for the New York Quinine and Chemical Works (Limited).

MR. R. J. REUTER, of 6 Well Street, Jewin Street, E.C., agent for Mülhens' No. 4,711 Eau de Cologne, informs us that his new post-office telephone number is 4711—a curious coincidence.

PINK TOPS are getting to be quite familiar in the household. They are the most recent form in which phenalgin is put up, and Mr. E. J. Reid, 11 Dunedin House, Basinghall Avenue, E.C., is the agent for the manufacturers. For headache, and other nerve disorders this is a convenient form of prescribing the remedy.

"DAY'S DIARY" is the name which Mr. John T. Day 40 Finsbury Square, E.C., gives to a penny "diary for the week," which he has just "presented to the world." It gives on the left-hand page the coming events of the day, and there is space on the right-hand page for that day's engagements. To Londoners it will be useful, and those visiting London should certainly have a copy of it, for it gives them lists of arrangements for churches, theatres, concerts, exhibitions, excursions, races, dinners and balls, golf, cricket, and lots of other things that are useful to know.

Trade-Marks Applied For.

(From the "Trade-marks Journal," April 16, 1902.)

"BRIGADE"; for coffee-essence. By A. H. Bolton, 5 and 6 Price's Lane, Dublin. 241,741.

"CHRYSOMEL"; for food substances. By P. Bellingham Smith & Co., 23 Rood Lane, E.C. 241,770.

"LUTRINE"; for a detergent. By J. Mallocks, 23 Canal Road, Bradford. 243,410.

"MOUNTAIN GLORY" and device of fairies picking flowers (the essential particular); for a perfume. By James Walker, 19 Dockhead Street, Saltcoats, N.B. 241,526.

"EMBO"; for cleansing polishes and creams. By W. & H. Miers (Limited), Phoenix Leather-works, Meanwood Road, Leeds. 244,608.

"AIR TABLETS" are being advertised in Paris. They are tablets of sodium peroxide or potassium peroxide, so compressed that when put in water they give off oxygen and absorb carbonic acid gas.

Legal Reports.

Trade Law.

Terminating an Engagement.—At Chesterfield County Court recently, Judge Smyly, K.C., gave judgment in a case in which a grocer claimed 2*l.* damages from a former employé for leaving his employment without notice. Defendant admitted that he left without notice, but he had offered to forfeit a week's wages, which plaintiff would not accept. Judge Smyly said the domestic servant, and the master of the domestic servant, had, by custom, a right to end a contract by payment of wages in lieu of notice; but that was only by custom. There had been many cases tested, and in each the question was raised as to whether the workman was a domestic servant or not, because if he was not the custom did not apply. He thought that, unless some custom was proved, a shopman had no right, by merely forfeiting a week's wages, to leave his work. There was certainly in that case no evidence of such custom. He therefore found for the plaintiff for the amount claimed, with costs.

Assistants' Agreements.—A drapery firm in Bradford had in their employ a Miss Vimpany, who in April, 1895, agreed that she would not within five years after the determination of the agreement with them carry on business on her own account as draper or milliner, or enter the employ of any other person or persons in any such business within a radius of ten miles of the Bradford Town Hall. In March, 1901, she left, and commenced business at Calver's Buildings, Commercial Street, Leeds. Her old employers objected, and a few days later a company was incorporated under the name of Madame Vimpany (Limited), at Calver's Buildings. Before Mr. Justice Farwell, in the High Court on April 18, the employers claimed an interim injunction to restrain Miss Vimpany from infringing her agreement; but the Judge would not agree to this, thinking it better that the motion should stand till the trial, as an interim injunction might seriously injure the defendant's business.

Testing Coins.—In one of the London police courts last week, the wife of a butcher had to refund to a customer 2*s.* in respect to good coins which she had bent. Mr. Button, the victim, said that on Monday, April 7, he bought some meat at the shop and tendered a sixpence in payment. Defendant said the coin was bad, and bent it. He offered another sixpence, and this was also bent and declared to be bad. He then tendered a shilling, which defendant bent, and observed it was the worst coin of the lot. He had received the coins from the London and County Bank two days before. Having marked them, he took them to the bank and a cashier tested and weighed them. They were declared to be perfectly correct. The Magistrate (Mr. Chapman) stated that by the Act, if anyone suspects a coin, he is entitled to bend it. If he bends it and it turns out to be a good coin, he has got to pay for the true value, and take the bent coin for what it is worth. He directed defendant to pay the prosecutor 2*s.* and receive the bent coins in exchange, also to pay 10*s.* costs.

Pharmacy Act (1868).

AN EX-ARMY COMPOUNDER FINED.

At the Bradford County Court on Tuesday, April 22, the Council of the Pharmaceutical Society sought to recover a 5*l.* penalty, under Section 15 of the Act, from Wm. Adams Cole, who is employed by the trustees of the late Thomas Clarkson, carrying on business at Tyrrel Street, Bradford. Mr. H. M. Dawson (Messrs. Beldon & Ackroyd) appeared for the Pharmaceutical Society; Mr. Neumann was for the defendant; and Mr. Hines watched the case on behalf of the trustees of Clarkson.

Mr. Dawson said the action was brought to recover penalties from the defendant for selling poison, he being an unqualified person.

Mr. Neumann, to shorten the case, admitted that defendant was not registered, and that the article sold was a poison. The defence was that he did not sell the poison. Entries of all the sales made in the shop were recorded on sheets of paper, and it was shown that on the day in question the article referred to was entered by an assistant, and therefore it was the assistant who had sold it, and not Cole.

Arthur Foulds, private inquiry agent, in the employ of the Pharmaceutical Society, deposed that on Saturday afternoon, January 18, he purchased from the defendant in Clarkson's shop a bottle of Kay's essence of linseed. There was nobody else in the shop at the time. In cross-examination, witness said there was no possibility of his being mistaken, and Cole had not been pointed out to him that day in the court. Cole

was easily recognisable, because he was a man so entirely different in appearance from the ordinary shop-assistant.

Mr. Neumann said the defendant's statement was that he did not sell the essence, and did not even know until he received the summons that they had had any of it in the shop. The entry of the sale was in the handwriting of Mr. Oddy, an assistant.

His Honour: Do you say that Mr. Oddy sold the essence? Mr. Neumann: I say Mr. Cole did not sell it. The fact that this man has got up in the box and sworn positively that Mr. Cole sold it quite clears Mr. Oddy. (Laughter.)

Mr. W. A. Cole gave evidence in support of his solicitor's statement, and in cross-examination said he was employed as a compounder of medicines. He went to the shop twelve months ago, believing himself to be a qualified man, and there was no other qualified man on the premises. The qualification which he thought was sufficient was one conferred on him by the War Office. He passed an examination in 1860 and naturally thought he was qualified, but unfortunately he was not registered. He was under the impression that he was qualified to take charge of a chemist's shop and sell all things that a chemist could sell. He had not kept a chemist's shop before he was employed by the trustees in 1874.

His Honour: If you were called away for some reason after you had made the sale, I suppose you might say to Mr. Oddy, "Just enter so and so," and he would then put it down that you had sold it?

The Defendant: It is possible that I might do so, but I did not sell that article. I do not remember it, and it is an article that one would remember. And I never remember seeing this gentleman in the shop.

His Honour: But you cannot remember every article you have sold.

The Defendant: I remember not selling that.

Arthur Oddy, being examined, said: I could not distinctly say that I sold that poison, but it is down in my handwriting, so I suppose I must have sold it.

His Honour: But you would put down sometimes things which Mr. Cole had sold?

The Witness: Yes.

His Honour: Yes, it is obvious that that would be so. Do you say, Mr. Neumann, that the private-inquiry agent is committing wilful perjury?

Mr. Neumann: I am entitled to say that there is the word of two men against that of one, and that he may be mistaken.

His Honour: It is the impression of two men against the oath of one who is trained to this matter, went there for the express purpose, and comes and says he has no doubt at all. I never place much reliance upon either myself or somebody else in regard to a matter to which their attention was not attracted at the time. How could he be mistaken about two men who are so entirely different in appearance?

Mr. Neumann: I can only suggest that he has seen the two in the shop and is confusing them. In cases of this kind two people should go into the shop.

Mr. Dawson: You had better amend the Pharmacy Act then.

His Honour: In the fact that you admit that this article was sold in the shop at the time alleged you have the strongest confirmation of the story of the plaintiffs' witness.

Mr. Neumann: But I am rebutting it with what is also strong evidence.

His Honour: The evidence of two men who come here and say, "We don't remember," is the weakest kind of evidence.

Mr. Neumann went on to argue that the conflict of testimony left a doubt, and that in such cases where there was a doubt the defendant ought to have the benefit of it. The Pharmaceutical Society might have strengthened their case by having two men in at the purchasing.

His Honour said he did not know that it was a matter against Mr. Cole's character, for he believed that he was qualified, and he could not say that the trustees or anybody else were to blame; but the offence had been committed, and there would have to be judgment for the plaintiffs.

Mr. Neumann asked if his Honour would add a recommendation to his judgment.

His Honour said no doubt there would be some representative of the Pharmaceutical Society present, and they would

know what was right and wrong in reference to the consequences of the judgment. He had not a sufficient understanding of the circumstances to enable him to express an opinion which was of any value. He must give the judgment, and leave the Pharmaceutical Society to enforce it in the way which they thought fit.

Merchandise-marks Act.

RED CROSS POWDERS.

AT Birmingham Police Court on April 17, H. G. H. Jennings, chemist, Hockley Street, Birmingham, summoned Frederick Gibson, chemist, Gooch Street, under this Act for unlawfully applying a false trade description—a red cross—to headache and neuralgia powders. The prosecutor, it transpired, obtained in 1900 copyright for an envelope on which the dominant characteristic and trade-mark was a red cross. His powders were sold in this, and they had become known all over the country, said counsel, as "Red Cross Powders." The defendants also sold headache-powders which up to the beginning of the present year were known as "Lily" powders, from the design on the envelopes. But he had recently stuck a red cross on the envelopes, and sold the powders as "Red Cross" powders, with the result that the prosecutor's sales had been materially affected. The Act, counsel submitted, was passed with a view to stopping frauds of that description. For the defence, it was urged that the red cross was a well-known emblem with chemists, and the "Lily" powders having been adopted by other firms, the defendant used the red cross to distinguish those of his manufacture from colourable imitations. In the witness-box the defendant admitted that when he began to use the red cross he knew of the existence of "Red Cross" powders, but he did not know they were made by Jennings. The Magistrate found the defendant guilty of applying the mark, and fined him 10*l.* and 5*l.* 5*s.* costs. Notice of appeal was given, and the destruction of the labels was delayed pending the result.

We append reduced facsimiles of the two packets. The first shows the plaintiff's, the wording being printed on



the powder wrapper. The second is defendant's powder envelope:—



Sale of Food and Drugs Acts.

SWEET SPIRIT OF NITRE.

AT Wootton Bassett Police Court on April 18, Frank Kempster, of Purton, was charged with selling sweet spirit of nitre which, according to the analysis of Dr. Bernard Dyer, contained only 0.25 per cent. of ethyl nitrite. The inspector said that the full price—6*d.* per oz.—was charged. A fine of 20*s.* was imposed, with 17*s.* 6*d.* costs.

AT Brandon Police Court on April 14, Mr. William Hildyard, chemist and druggist, Thetford and Brandon, was charged with having sold 4 oz. of sweet spirit of nitre which the analyst (Mr. F. Sutton, of Norwich) certified to consist of

ethyl nitrite 0.25 per cent., alcohol and legitimate water 32.00 per cent., water 17.75 per cent. The sample thus contained only one-seventh of the minimum proportion of ethyl nitrite required by the B.P. Mr. A. E. Day, in defence, raised an objection to the analyst's certificate as being too vague, as the separate proportions of alcohol and legitimate water should have been stated. He called Mr. Hildyard, who stated that he had sent the constituent parts to his manager at Brandon (Mr. Thomas Silk) to make up, and they were at full strength. It was impossible to keep sweet spirit of nitre for retail up to sample strength, as every time the stopper was removed considerable evaporation occurred. Analysts agreed that the minimum stated by the British Pharmacopœia was too high. The Bench said they could not but find that the sample was deficient in strength, but at the same time they absolved Mr. Hildyard of any personal responsibility and fined him the mitigated penalty of 10*s.* and 3*s.* 6*d.* costs. Inspector Reeve stated that he took at the same time a sample of cream of tartar, which the analyst found perfectly genuine.

High Court Cases.

TIEMANN'S IONONE PATENT (8,736 OF 1893).

IN the Court of Appeal on April 18, before the Master of the Rolls, Lord Justice Stirling, and Lord Justice Cozens-Hardy, an appeal stood on the list in respect to the dismissal by Mr. Justice Cozens-Hardy (*C. & D.*, August 5, 1899, page 258) of a petition for the revocation of a patent granted to Johann Carl W. F. Tiemann, of Berlin, for the manufacture of ionone. When the appeal was called on in its turn, no counsel appeared for either the appellants or the respondents, and the Court ordered the appeal to be struck out.

INCANDESCENT MANTLES

THE case of the Welsbach Incandescent Company *v.* United Chemical-works and another came before the King's Bench Division on April 21, Mr. Justice Ridley sitting without a jury. Mr. Bucknill appeared for the plaintiff company, and said the parties had agreed upon terms—viz., that the action should be stayed, the defendants admitting the validity of the plaintiffs' patent, and taking a licence upon agreed terms; each party to pay their own costs. Mr. McNeill, for the defendants, assenting, an order was made accordingly.

A SPORTING TRANSACTION.

IN the Dublin Nisi Prius Court on April 19, before Mr. Justice Wright, a case was mentioned in which Mr. Isidore Bradlaw, chemist, Grafton Street, Dublin, sued one John Casey to recover damages arising out of a sporting transaction. Mr. Moriarty, counsel for the defendant, said his Lordship and the jury would not be troubled with the case. Prior to the assault the parties were good friends, and they hoped to be so in the future. The defendant regretted what had taken place, and had consented to pay the plaintiff's costs. Mr. O'Shaughnessy, K.C., who represented the plaintiff, said that his client had instituted the proceedings to merely vindicate himself. The matter would be ended by making a consent a rule of Court.

BOVRIL (LIMITED) *v.* HUMPHREY.

IN the Chancery Division on Friday, April 18, Mr. Justice Buckley had before him a motion by the plaintiff company for an injunction to restrain the defendants, booksellers, of Paternoster Row, from publishing any advertisement or placard containing a statement that bovril is made of any substance other than beef. The learned counsel stated that the defendant appeared in person, and consented to treat the motion as the trial of the action, submit to a perpetual injunction in terms of the notice of motion, and pay the plaintiff's taxed costs of the action. He also, in addition, consented to allow an apology, which he had signed, to be inserted at his own expense (such expense not to exceed 10*l.*) in such newspapers as the plaintiffs should desire; and on that the plaintiffs waived all claim to damages.

The defendant (who was present in court) said that he left himself in the hands of his Lordship.

Mr. Justice Buckley: Do you consent to an order in the terms mentioned?

Defendant: Yes.

Mr. Justice Buckley said he thought it would be a hardship upon the defendant to allow the apology to be advertised indefinitely, even at the plaintiffs' own expense, and limited such advertisements to a period of one month.

Stamp Act, 1812.

"DELIGHTFULLY SOOTHING"—APPEAL.

IN the King's Bench Division on April 23, before the Lord Chief Justice and Justices Darling and Channell, Sir Edward Carson, K.C., applied for a rule nisi for a mandamus directed to the Brentford Magistrates, calling upon them to show cause why they should not state a case in the matter of an information laid against Mr. Sanguinetti for selling "Pure gum pastilles: Influenza. Delightfully soothing," &c., unstamped. Sir Edward explained that the Magistrates dismissed the information, and were asked to state a case. They first replied that the application was frivolous, and subsequently they said they would state a case if informant would enter a condition that in any event the Inland Revenue would pay the costs. Counsel contended that the justices had no right to make such a condition. Their Lordships granted the rule.

County Court Cases.

DEBT ACTIONS.

IN the Westminster County Court on Tuesday, April 22, Judge Woodfall had before him the case of Corbyn, Stacey & Co. v. Teeson, in which the plaintiffs sought to enforce payment of a judgment debt due to them from the defendant, a retail druggist, carrying on business at 49 Parliament Row, Old Hall Street, Hanley. It was stated by the plaintiffs that the defendant was the proprietor of the business in question, and employed two assistants. The defendant, however, sent an affidavit to the Court, in which he swore that the business belonged to his wife, and that the profits were only about 25s. a week. He absolutely denied that they kept two assistants, and said they did not keep so much as a shopboy. His Honour made an order for payment by instalments of 1*l.* a month, subject to committal for ten days in default, and remarked that the defendant had held himself out to the plaintiffs as the proprietor of the business.

IN the same Court on Tuesday, his Honour Judge Woodfall had before him the case of Fryer v. May, in which the plaintiff, a dealer in fancy goods, sought for the committal of the defendant, a chemist carrying on business at Upper Norwood, for non-payment of a judgment debt in respect of goods supplied in the way of trade. The defendant appeared, and said his shop at Norwood was a total failure, and was now closed, therefore he could not afford to pay. His Honour made an order for payment by instalments of 1*l.* a month, subject to committal in default.

A LABORATORY-TAP THAT DID DAMAGE.

IN the City of London Court on Tuesday, April 22, before Judge Rentoul, K.C., the London Oil-storage Company (Limited), 23 Leadenhall Street, E.C., sought to recover 10*l.* 1*s.* 6*d.* from Mr. John T. Norman, F.C.S., analytical chemist, of the same address, for damage done to their premises through the negligence of the defendant or his servants. Mr. James H. Welfare stated on behalf of plaintiffs that defendant's office was on the floor above their's, and in November, 1901, damage was done to the plaintiffs' premises through water coming down from the floor above. Their papers and general office-utensils were deluged, and the coat and hat of one of their clerks were quite spoiled. They had had to make good the damage, and they now sought to make the defendant responsible. The evidence of Frank Smith, night porter to the landlords, and of his wife, showed that the leakage was due to a tap having been left full on. Sidney Wood, day porter, thought the water had been left on all night for some chemical test, and the tube fastened to the tap had fallen off. Simpson, the housekeeper, said that since the accident a stop-cock had been provided which would shut off the water from defendant's premises.

Mr. D. J. Arthur, defendant's solicitor, said his client could only be held liable for the results of his own or his

servant's acts or those of his agents. At 11 o'clock the previous night everything was all right. The defendant and his servants had left the office some hours before then, and they would not have any access to the defendant's laboratory. Both the plaintiffs and defendant left the keys of their offices in charge of the housekeeper.

Mr. Welfare said the defendant carried on his business of a chemist entirely at his own risk. It was not an ordinary and natural use of premises to have taps and cisterns in their rooms which were intended for offices.

Judge Rentoul said there were numerous difficulties in the way of the plaintiffs recovering. One of the attendants might have gone into the defendant's premises and turned the tap on. A man who brought a dangerous thing on his premises, and who did not take extraordinary care, was no doubt responsible for it; but in the present case the matter was different. Every night the defendant gave his key to the housekeeper, who might by chance have left the tap on.

After some conversation between Bench and Bar, Mr. Arthur said he hoped the Court had not assumed that a chemical laboratory is an "unnatural employment."

Judge Rentoul said that was exactly what he had to look into. It was not a usual thing to have an office used as a laboratory, but it was frequently done. That he knew.

Mr. Arthur said there were sixty chemists with laboratories who were carrying on business in the City of London.

Judge Rentoul said that was very probable, but that was a very small number. It was quite clear that the owners of mill-dams carried them on at their own peril, and that they were liable for any damage which was occasioned, whether there was negligence or not.

Mr. Arthur added that the plaintiffs must contend, in order to recover, that the defendants' liability was the same as if he had been in charge of a wild beast.

Mr. Welfare: I say that a laboratory is a wild beast for these purposes. (Laughter.)

Judge Rentoul said he would take time to consider his decision, and judgment was reserved accordingly.

Bankruptcies and Failures.

Re JOHN LEACH the Elder, Crawley, Pharmaceutical Chemist.

THE statutory meeting of creditors was held at Brighton on April 18, and the debtor having no offer was adjudged bankrupt, and the Official Receiver is the trustee under an order made for summary administration. The following are creditors:—

	£	s.	d.
Barclay & Sons (Limited), London	...	48	15 7
Benjamin, A., London	...	10	3 10
Brownrigg & Co., London	...	16	5 1
Camwal (Limited), Mitcham	...	23	13 2
Davy, Hill & Co., London	...	185	17 5
Holmes, Lear & Co., Littlehampton	...	12	8 5
Leach, J. P., Crawley	...	527	14 2
Marshall, —, Crawley	...	373	14 10
Potter, J., Crawley	...	104	0 0
Schweppe & Co. (Limited), London	...	11	14 9
Silverlock, H., London	...	10	3 1

Partly Secured.

Loudon Counties Banking Company,			
Crawley	...	450	0 0

Preferential.

Leach, J. P., Crawley	...	35	14 0
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Re S. TURNER, Milcote Road, Edgbaston, Birmingham (late carrying on business at Church Street, Bilston), Druggist and Drysalter.—The Official Receiver of the Wolverhampton Bankruptcy Court, as trustee under this failure, reports that he has completed the realisation of the estate, and the proceeds, after paying costs, will allow of the payment of a first and final dividend of 3*s.* 10*d.* in the pound.

ON Sunday morning, while writing in his study, died, at the Priory near Derby, to which he had lately removed, Dr. Darwin, without the least previous indisposition. This gentleman justly held a high rank in the literary world, by his writings of the Botanic Garden, Zoonomia, Phytologia, &c.—The Times, Thursday, April 22, 1802. [This was Erasmus Darwin, grandfather of Charles Darwin, of Evolution fame.]

Deeds of Arrangement.

Ainsworth, Charles Henry, trading as Johnson & Co., 37 Beeston Road and 231 York Street, and residing at 57 Rydall Place, all Leeds, chemist. Trustee, James B. Lapsch, 7 Greck Street, Leeds, chartered accountant. Dated April 10; filed, April 15. Secured creditors, 25*l.*; liabilities unsecured, 394*l.* 8*s.* 3*d.*; estimated net assets, 331*l.* The following are scheduled as creditors:—

	£	s.	d.
Goodall, Backhouse & Co., Leeds ...	45	0	0
Hirst, Brooke & Hirst (Limited), Leeds ...	16	0	0
Johnson, William, Leeds ...	290	0	0
Raines & Co., York ...	18	0	0

Wilkinson, John Henry Varley, The Cross, Nailsworth, chemist and mineral-water manufacturer. Trustee, George White, 14 Old Jewry Chambers, London, E.C., chartered accountant. Dated, April 14; filed, April 18. Preferential creditors, 16*l.*; liabilities unsecured, 2,037*l.* 2*s.* 9*d.* Estimated net assets, 382*l.* 1*s.* 7*d.* The following are scheduled as creditors:—

	£	s.	d.
Abott, T. H., Nail-worth ...	195	0	0
Barron, Harveys & Co., London ...	22	0	0
Benjamin, J. & E., & Co., Nailsworth ...	41	0	0
Evans, Lescher & Webb, London ...	46	0	0
Foggett, William, Thirsk ...	22	0	0
Hearon, Squire & Co., London ...	155	0	0
Idris & Co., London ...	14	0	0
Kilner Brothers, London ...	20	0	0
King, J., Nailsworth ...	26	0	0
Maw, Son & Sons, London ...	16	0	0
Meggison & Co., London ...	19	0	0
Tyler, Hayward & Co., London ...	41	0	0
Underwood, Mrs. ...	78	0	0
Wilkinson, F., Huddersfield ...	572	0	0
York Glass Company, York ...	15	0	0
Bankers' claims ...	564	0	0

Gazette.

Partnerships Dissolved.

Blackwell, J., Hayes, J., and Spilsbury, J., under the style of Blackwell, Hayes & Spilsbury, Birmingham, wholesale chemists and druggists.

Howells, W., and Jayne, F. J., under the style of Howells & Jayne, Talgarth, medical practitioners.

Hunt, R., and Burnett, E. N., under the style of Hunt & Burnett, Blackburn, physicians, surgeons, and accoucheurs.

McInyre, Francis Gibb, and Muir, Dr. James Steel (trading as the Possilpark Apothecaries Company), 249 Saracen Street, Possilpark, Glasgow, chemists and druggists. Debts by J. S. Muir, who continues.—*Scottish Law Court Record.*

New Companies & Company News.

J. C. CORDING & Co. (LIMITED).—Capital 25,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by Mrs. Ann Wilson at 19 Piccadilly, and 35 St. James' Street, London, and elsewhere, as "J. C. Cording & Co.," and to carry on the business of manufacturers of and dealers in rubber goods, &c. Mrs. A. Wilson is governing director, and may retain office so long as she holds 5,000 shares. She has nominated as directors to act with her G. Sbarman and H. Riley. Qualification of subsequent governing directors, 3,000*l.*; of ordinary directors, 500*l.* No remuneration for Mrs. A. Wilson. Remuneration of other directors as fixed by agreement. Registered office, 19 Piccadilly, W.

E. P. GUEST (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To carry on the business of pharmaceutical chemists and druggists, dealers in photographic materials, vendors of patent and veterinary medicines, oil and colourmen, &c. The first subscribers are: Mrs. J. Guest, High Street, Brentwood; E. G. Martin, High Street, Brentwood, chemist; Miss L. M. Baddeley, 30 Dunsmore Road, Stamford Hill, N.; J. W. Baddeley, 19 Moor Lane, E.C., wholesale stationer; M. Baddeley, 19 Moor Lane, E.C., wholesale stationer; W. Baddeley, 19 Moor Lane, E.C., wholesale stationer; and Miss E. M. Baddeley, 30 Dunsmore Road, N. No initial public issue. Registered without articles of association. Registered office, High Street, Brentwood, Essex.

G. W. KENNEY & Co. (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of wholesale or retail chemists, druggists, opticians, manufacturers of and dealers in drugs, medicines, proprietary articles, surgical, photographic, scientific, optical, and other instruments, appliances, and materials, &c., and to employ qualified persons to act on the Company's behalf as pharmaceutical and analytical chemists, advising chemists, dentists, opticians, &c. The first subscribers are: G. W. Kenney, High Street, Moreton in Marsh, chemist; F. W. Crisp, High Street, Moreton-in-Marsh; Mrs. M. M. Crisp, High Street, Moreton-in-Marsh; Mrs. E. M. Kenney, High Street, Moreton-in-Marsh; C. N. Cook, High Street, Moreton-in-Marsh, grocer; J. Davis, High Street, Moreton-in-Marsh, grocer; and F. F. Elliott, Station Road, Moreton-in-Marsh, surveyor. No initial public issue. Table "A" mainly applies. Registered office, High Street, Moreton-in-Marsh, Glos.

EVANS, GADD & Co. (LIMITED).—Capital 50,000*l.*, in 1*l.* shares (34,000 preference). Objects: To acquire the business of wholesale and manufacturing chemists, wholesale and manufacturing stationers, and dealers in ammunition and gunpowder carried on by Evans, Gadd & Co., at 97, 98, 99, and 100 Fore Street, Exeter, and at 23 and 24 Redcliffe Street, Bristol, to adopt an agreement with Henry Gadd and William J. Wippell, and to carry on the business of wholesale, retail, and manufacturing chemists and druggists, analytical and consulting chemists, vendors of patent medicines and druggists' sundries, oil and colour merchants, chemical manufacturers, distillers, perfumers, soap makers, tobacconists, mineral-water manufacturers, manufacturers of photographic, surgical, and scientific apparatus and materials, stationers, printers, lithographers, photographic-printers, photo lithographers, advertising and general agents, paper-manufacturers, manufacturers of and dealers in explosives and ammunition, &c. The first subscribers are: H. Gadd, 31 St. David's Hill, Exeter, J.P., manufacturing chemist, W. J. Wippell, 5 Powderham Crescent, Exeter, manufacturing chemist; H. W. Gadd, 42 Union Road, Exeter, manufacturing chemist; H. E. Boorne, 49 Woodstock Road, Redland, Bristol, pharmaceutical chemist; H. H. Wippell, Ivy Bank, Exeter, manufacturer of church furniture; S. C. Gadd, 31 St. David's Hill, Exeter, manufacturing chemist; and Mrs. A. Gadd, 31 St. David's Hill, Exeter. No initial public issue. The number of directors is not to be less than three nor more than six. The first are H. Gadd, J.P., M.P.S., W. J. Wippell, H. W. Gadd, M.P.S., F.C.S., and H. E. Boorne, Ph.C., F.C.S. Qualification, 500*l.* Remuneration of ordinary directors as fixed by the company. The four first named are managing directors, and may hold office until 1913. Remuneration of managing directors as fixed by agreement. [This conversion is made, we understand, for family reasons.—*Ed.*]

SALT UNION (LIMITED).—In the Chancery of Lancaster, sitting at Manchester on Monday, Vice-Chancellor Hall granted an application for a reduction of the capital of the Salt Union (Limited) from 3,000,000*l.* to 1,400,000*l.* The Vice-Chancellor directed that the word "reduced" should be added to the name of the union for a month.

BORAX CONSOLIDATED (LIMITED).—The directors announce that the half-yearly coupon No. 6 of the preference share warrants to bearer will be paid on and after May 1 at the offices, 77 and 78 Gracechurch Street, E.C., or in France by the Banque Privée and Messrs. Jacquier, Falcouze & Cie., at Lyons. The directors have also decided to pay an interim dividend of 5*s.* on each ordinary share for the quarter ended December 31, 1901, being at the rate of 10 per cent.

SINGLETON & COLE (LIMITED).—At the annual meeting of shareholders in Birmingham on April 22, the Chairman (Mr. H. C. Clarke) moved the adoption of the report, which showed that, notwithstanding the general upset in the trade, there was a disposable balance of 10,785*l.*, and proposed a dividend of 7 per cent. for the second half of the year, making 6 per cent. for the year. The balance sheet, the Chairman remarked, was the best presented since the reconstruction of the company. It was impossible to prophesy, he said what effect the action of the great rivals in the tobacco trade would have upon their business, but so far they had nothing to complain of. They had, many strings to their bow, and considered they were in a far better position than many other tobacco manufacturers. The report was adopted.

"**PHARMACEUTICAL FORMULAS.**"—We are now binding this work entirely in black buckram, which experienced librarians find is more lasting than leather. The price of the work remains the same—7*s.* 6*d.*, by post 8*s.*, from our offices, or for the published price from any wholesale house.

Westminster Wisdom.

(By our Parliamentary Representative.)

CHEQUE-DUTY.

In a discussion on the Budget resolution in the House of Commons on Monday evening, the members spoke more about the proposed cheque-duty than the income-tax, which was the question before the house. In the course of his reply Sir M. Hicks-Beach said:—

I am astonished at the importance that is attached to this. I perhaps did not realise it—(cheers)—and I have already undertaken not only to inquire into the matter, but to see what I can do to remedy the objections that have been made to this increased duty. I understand that the position is this. It is thought that the duty should not be unduly heavy on traders and those who use small cheques in the way of business. If it were so, of course it would work in one of two ways. It would either induce them to draw fewer cheques than they have done, which would not be to my advantage, because it would reduce my revenue, or it would be an exceptionally heavy burden upon them as compared with the taxation which they ought to bear. I feel that that is a fair argument and one which I must endeavour to meet with regard to the tax. Then there is another matter. It is argued by bankers, and, I think, reasonably, that it would be quite intolerable as a matter of business to have more than one stamp—(hear, hear)—so that smaller cheques would have a different stamp from those which were of a higher value. I have to endeavour to meet both these objections to the tax. I have a scheme under my consideration which I hope may do it, but it is not yet in such a perfect shape that I am able to mention it to the Committee; but I think I see my way to maintain the tax and to meet both those objections. (Laughter.)

The hostility to the duty inside and outside the House is such that it scarcely required Sir Michael's assurance to know that as originally proposed the duty will not go.

WATER-STANDARD FOR BUTTER.

Replying to Sir E. Strachey on Monday afternoon, the President of the Board of Agriculture (Mr. Hanbury) stated that regulations will at once be issued under Section 4 of the Sale of Food and Drugs Act, 1899, declaring that the presence of more than 16 per cent. of water in any sample of butter shall raise a presumption that the butter is not genuine. The regulations will come into force on May 15.

MICROBES IN THE COMMONS.

It appears that the recent tests of the air in the House of Commons showed a very good result as regards the amount of carbonic acid, which was only 5.2 volumes in 10,000—very little in excess of the quantity usually met with in the air of cities, and far less than is generally present in places of assembly. The bacteriological test revealed an undue number of micro-organisms, but none of them were found to be disease-producing. The full reports by Dr. Thorpe, the principal of the Government laboratory, will be laid before the Select Committee on the Ventilation of the House, the appointment of which I mentioned last week, and the First Commissioner of Works proposes that further experiments shall be made in order to discover the cause of the presence of so many microbes, with the view to taking suitable measures of improvement. It is probable that the same scientific test will be applied to the atmosphere of other public buildings.

Dr. Farquharson is to ask the First Commissioner of Works, in connection with this matter, whether he will apply the same scientific test to the atmosphere of other public buildings, such as the Central Criminal Court and the British Museum Library.

"SO-CALLED TEMPERANCE DRINKS."

The other day the Chancellor of the Exchequer was asked to state to what extent, if any, during the last three years so-called temperance drinks have been charged with duty as containing over 2 per cent. of proof spirit. Sir Michael Hicks-Beach replied that there is no law which enables the Board of Inland Revenue to charge duty upon these drinks if they are found to contain more than 2 per cent. of proof spirit, but during the last three years proceedings have been instituted in 136 cases in which a penalty had been incurred by the sale of such drinks without licence.

FOREIGN COMPETING GOODS.

Within the past few weeks twenty-two petitions, signed by 197,175 persons, have been presented asking for the imposition of a Customs revenue-duty on foreign competing goods. No doubt the idea of the petitioners was to influence the Chancellor of the Exchequer in framing his Budget, and in this connection it is amusing to find that Sir Michael Hicks-Beach was called upon by some of his constituents in Bristol to present one of the petitions himself. He must have chuckled. The Bristol signatures numbered 9,825. Mr. Chamberlain presented one from 48,200 persons in Birmingham, Mr. Gerald Balfour from 6,637 persons in Leeds, Mr. David MacIver from 23,360 persons in Liverpool, and Mr. James Lowther from 11,083 persons in Cardiff. The other petitions came from Battersea, Burnley, Swansea, Middlesbrough, Sheffield, Leicester, Barrow-in-Furness, Kidderminster, Fulham, Hanley, Bradford, Nottingham, Huddersfield, Islington, Newcastle-on-Tyne, Glasgow, and Coventry.

PATENT LAW AMENDMENT.

The Government's Bill to amend the patent law was down for second reading on Monday, but it had to be postponed. Should the opportunity for debate ever arise this Session, which is doubtful now, Mr. Joseph Lawrence will move a resolution to the effect that no Bill dealing with the subject will be satisfactory which does not provide for the removal of the advantages which foreign inventors and manufacturers possess over British inventors and manufacturers by reason of the inequalities between the patent laws of Great Britain and those of the leading continental nations.

A BUDGET QUESTION.

Mr. Warr raised a new point in connection with the Budget on Monday. He asked the Chancellor of the Exchequer whether the intention of the flour-tax resolution is to include under the word "flour" such articles as sago-flour, mandioca-flour, dextrin, and tapioca-flour, all of which articles are unfit for human food, and are used exclusively in the manufacture of fine goods for sizing-purposes and for the purpose of commercial gum-making. Sir Michael Hicks-Beach, in answering, stated that the articles specified are liable to duty under the Budget resolutions. He was not aware, however, that sago and tapioca flour, for example, are unfit for human food.

MONOPOLY SALE OF OPIUM.

Mr. Caine, who asked the Secretary for India on Monday whether the Government of Burma has, in taking over the monopoly sale of opium for that province, made arrangements for the retail sale of cooked opium, specially prepared for smoking-purposes, was informed that some modifications in the regulations for the licensed sale of opium in Burma have been recently introduced, "but I have no information," Lord George Hamilton added, "of any such arrangement as the hon. member refers to."

INDIAN AND MAURITIUS SUGAR.

In view of the announcement that a grant-in-aid will be given from Imperial funds to the West Indian sugar colonies, Mr. Greene asked the Secretary for India the other day whether it is intended to assist Indian native and Mauritius sugar-growers by the imposition of import-duties against the Austrian and German cartels until the bounties are abolished in accordance with the terms of the Brussels Sugar Convention. Lord George Hamilton's answer was that there are countervailing duties on sugar in operation in India against the bounty or cartel system of foreign countries, and if these duties are proved to be insufficient it is in the power of the Government of India to raise them.

THE PURE-BEER DEBATE.

The debate on the second reading of the Bill to amend the law relating to the manufacture and sale of beer, on Wednesday, developed some points of interest to chemists. In the Bill of last year no substitutes of any kind for malt were allowed, but on this occasion there is a clause running: "It shall not be lawful in brewing or preparing beer for sale to use a less quantity of barley malt than 85 per cent. of the total saccharin-yielding materials employed, the quantity of

materials other than barley malt being calculated according to their respective equivalents in malt as fixed for the time being for the purposes of the charge of duty on beer." All substitutes for hops are, however, prohibited, as was the case in last year's Bill. Dr. Farquharson strongly protested against the latter prohibition. Such substitutes as quassia are not, in his opinion, deleterious, and it would be oppressive to stop their use. Colonel Brookfield retorted with the remark that the majority of brewers state that they do not use these substitutes, and all the promoters desired to do was to make the practice law. The great speech of the day, however, was made by Mr. Fletcher Moulton, who favoured the House with an eloquent account of the evolution of brewing as an industrial science. He described the Bill as an attempt to render criminal the processes by which certainly one-third, and probably one-half, of the beer now made in England is manufactured, and to prevent science from having its natural reward. The sugars obtained from starch which were stigmatised as substitutes are practically identical with sugar of malt, for they are all produced from starch, and these so-called substitutes are, in fact, the result of true scientific steps taken to make beer better and cheaper. He went on to argue that it is not the function of Parliament to step in and stop the natural development of a great industry. It was suggested by a subsequent speaker that the Opposition to the Bill was inspired by the manufacturers of substitutes and the brewers who used them, but, apparently with the object of refuting the statement, the member who spoke next was Sir Michael Foster, who stoutly objected to the Bill. He said it was a standard for materials in beer, not a standard for beer, and he submitted that if saccharin ingredients were restricted to 15 per cent, it would be impossible to brew good light beer from English barley. Another speaker, who may be mentioned in a line was Mr. Chaplin, who replied to Mr. Moulton's argument in regard to the use of substitutes. He contended that the sugar of these substitutes is produced by the use of acids, and it is through these acids that the country had had all the trouble over arsenical poisoning. Eventually the Bill was rejected by 212 votes to 140, and the advocates of "pure beer" went home dejected.

Personalities.

MR. G. J. GOSTLING, J.P., C.C., of Stowmarket, has been again unanimously re-elected Chairman of the Urban District Council.

MR. J. C. ARNFIELD, pharmaceutical chemist, Stockport, has been elected a Vice-President of the Stockport Tradesmen's Association.

IT is not often that a man passes the Minor examination on his birthday, but this happy coincidence of events was experienced by Mr. George Marris, of Grimsby, at Galen Place last week.

AMONGST the pictures in the Royal Drawing Society's Exhibition is one by Master Stainer, son of Mr. J. W. Stainer, F.C.S., pharmaceutical chemist, Folkestone. The young artist is in his sixth year.

MR. MARMADUKE RICHARDS, manager of Messrs. Maynard & Co. (Limited), Singapore, expects to arrive in England about May 1 for a six months' holiday. Letters to him may be addressed c/o Messrs. A. Durant & Co., 32 Gresham Street, E.C.

MR. JULIAN HORRELL, pharmaceutical chemist, whose re-election to the Broadstairs Urban District Council we noted in our issue of April 12 (page 579), has been unanimously elected Chairman of that body, by virtue of which office he becomes a Justice of the Peace.

MR. HENRY PEET, J.P., chemist and druggist, was recently returned at the head of the poll for the Exchange Division of Liverpool, and at the first meeting of the Liverpool Select Vestry he was unanimously elected Chairman for the year. Mr. Peet has been a member of the Select Vestry for seventeen years.

MR. O. E. FOX, the pharmaceutical Mayor of Bethnal Green, received the Princess of Wales on Wednesday after-

noon, on the occasion of her visit to the church of St. James the Less. The Princess, who was attended by Lady Eva Dugdale and the Hon. Alexander Hood, graciously shook hands with the Mayor, who presented an illuminated address in a carved West India satinwood casket, a specimen of local workmanship, and with the Mayoress, Mrs. Fox, who presented a splendid bouquet.

Marriages.

ALDERTON—PARKER.—At St. Peter's, Mowbray, Cape Colony, by special licence on March 26, W. B. Alderton, of Messrs. A. S. Smith & Co., chemists, Johannesburg, to Maude Grace, only daughter of the late Mr. George Gwyn Parker of Manor Lodge, Teddington, England, and of Mrs. Parker, Leigh, Kent.

BARKER—LLOYD.—On April 16, at St. Matthew's Parish Church, Buckley, by the Rev. W. P. de Winton Kitcat, assisted by the Rev. J. George (vicar of Bistre). Mr. R. Barker, junr., chemist and druggist, Buckley (third son of Mr. R. Barker, chemist, Mold), to Mary, younger daughter of Mrs. Lloyd, Sandycroft Farm, Buckley.

HUNT—ANDREWS.—On April 15, at Holy Trinity Church, Coalbrookdale, Shropshire, by the Rev. C. B. Crowe, vicar, Henry Lionel Hunt, chemist and druggist, Reading, to Clara, second daughter of the late Mr. W. H. Andrews, of Lewisham, and niece of Mr. J. V. Rawle, Ironbridge.

WALSH—DOOGAN.—On April 16, at St. Patrick's Church, Glen, Maghera, co. Derry, Mr. John Walsh, M.P.S.I., eldest son of Mr. Louis Walsh, Maghera, to Tillie, third daughter of the late Mr. M. Doogan, Draperstown, co. Derry.

Deaths.

FALKNER.—On April 11, at Oxford, Mr. Richard Falkner, chemist and druggist, formerly of Banbury. Aged 75.

LEEMING.—Mr. Thomas Leeming, senior partner of Messrs. Leeming, Miles & Co., wholesale druggists, Montreal, died at Lakehurst, N.J., on March 31. Aged 65. Mr. Leeming was born in Burnley, Lancashire, and in 1840 he went with his parents to Montreal, where his father, Joseph Leeming, and his uncle established the commission house of Joseph & John Leeming. Mr. Leeming's boyhood was spent at Kemptville, a frontier settlement in the Ottawa region, and on his father's death he continued the Canadian business. With him gradually grew the development of the concern, and in 1883 he went to New York to assume charge of the present house of Thos. Leeming & Co. Mr. Leeming was a man of keen business enterprise, had travelled extensively, and his genial and charitable nature brought him many friends. He is survived by three sons and two daughters.

MADDEN.—On April 14, Dr. Thomas More Madden, Merriown Square, Dublin, at his residence in co. Wicklow. Dr. Madden was physician to the Mater Misericordiae Hospital, and examiner in midwifery in the Royal College of Surgeons. He was the author of books on climate and gynaecology and contributed an interesting account of ancient Irish medicine to the *Medical Magazine* in 1899. Dr. Madden was 64 years of age.

MAXEY.—On April 15, at his residence, 2 Union Place, The Crescent, Wisbech, Mr. John Thomas Maxey, chemist and druggist. Aged 45. Mr. Maxey, who died suddenly from cerebral hæmorrhage, succeeded to the business of his father. He leaves a widow and five children.



MERRIAM.—At Charles City, Ia., on March 26, Mr. Andrew B. Merriam, Secretary of the National Wholesale Druggists' Association of America. Aged 76. Mr. Merriam was born in Salem, N.Y., and served his apprenticeship to the drug-business with Mr. J. C. Ayer, of Lowell, Mass. In 1848 he went to Cincinnati, where he ultimately established the business of A. B. Merriam & Co. While in business in that city the Western Wholesale Drug Association was formed, with Mr. Merriam as Secretary. This was finally merged into the National Association, and Mr. Merriam has been continuously Secretary since 1876, with the exception of the years 1879 and 1880.

MURDOCH.—At Stirling, on April 21, Mr. George Murdoch, chemist and druggist, of the old-established firm Murdoch Brothers, chemists and druggists, Sauchiehall Street, Glasgow. Aged 80. Mr. Murdoch was an unobtrusive but representative pharmacist of the old school. He had travelled daily between Stirling (where he resided) and Glasgow since 1851. In the late fifties his firm was innocently involved in the Madeline Smith *cause célèbre*, though the circumstance that the arsenic which caused L'Angelier's death was supplied to Miss Smith by one of Murdoch Brothers' assistants, the recently deceased Mr. James Dickie, of Crosshill. There were no scheduled poisons in those days, but it was proved at the trial that the sale had been made with all reasonable precautions. Miss Smith was known to Mr. Dickie, and she explained that the arsenic was for poisoning rats in her father's house at the coast. Mr. John Murdoch, of Sussex House, Leadenhall Street, E.C., drug and chemical export agent, is a son of the deceased gentleman.

PECHMANN.—Dr. Hans von Pechmann, Professor of Chemistry at the Tübingen University, was on April 19 found dead in his private room at the chemical laboratory of which he was principal. He had been suffering from a nervous complaint for some time, and appears to have committed suicide by taking poison.

ROBINSON.—On April 17, at Zurich Villa, Pendleton, Manchester, Margaret, wife of Alderman Benjamin Robinson, J.P., chemist and druggist (of Messrs. B. Robinson & Co., Limited).

STANDRING.—At Manchester, on March 31, Mr. John Standring, chemist and druggist. Aged 70.

Recent Wills.

BUTLER.—The will of the late Mr. John Livesey Butler, druggist and chemist, of 64 Harehills Avenue and Hirst's Yard, Briggate, Leeds, has been proved at 2,946*l.* gross, and 996*l.* net personalty.

HILLS.—The will of Mr. Thomas Hyde Hills, surgeon, of 7 St. Peter's Terrace, Cambridge, has been proved at the Peterborough District Registry by his executors, Mrs. Catherine Isabella Hills, widow, and Mr. Walter Hills, 225 Oxford Street, London, W., brother. The gross estate is valued at 13,353*l.* 3*s.* 6*d.*, and the net personalty 12,638*l.* 11*s.* 2*d.*

SOUTHALL.—The late Mrs. Sarah Southall, of Edgbaston, who died on January 11, in her 101st year, left personal estate of the net value of 35,262*l.* By her will, dated July 7, 1892 (with three codicils), she appointed as executors her daughter Margaret, wife of Mr. William Henry Evans, Llantwit Major, Glamorgan; her son-in-law, Mr. William Ransom, of Hitchin; her nephew, Mr. John Tertius Southall, of Parkfield, Ross, J.P.; and her grandsons, Mr. Francis Ransom, of Hitchin, and Mr. Thomas Southall Dymond, of Chelmsford, chemical agricultural lecturer. To the three last-named the testatrix bequeathed 300*l.*, to her grandson George Cecil Dymond 100*l.*, to her other grandsons and to her great grandson Paul Englehart 100*l.* each, to Joseph Henry and John William and Edmund Shorthouse 300*l.*, to her daughter Mrs. Evans 250*l.*, to her daughter Isabel 100*l.* and such furniture as she may choose to the value of 100*l.* She bequeathed the remainder of her household effects to her said two daughters, and left 4,000*l.* and one-fourth of her residuary estate in trust for the son and two daughters of her daughter the late Mrs. Anna Mary Ransom, and 4,000*l.* and one-fourth of her residuary estate in trust for the children of her daughter Ellen Dymond, and 4,000*l.* and one-fourth of her residuary estate in trust for her daughter Mrs. Evans and her children, and 5,000*l.* and the remaining one-fourth of her residuary estate in trust for her daughter Isabel.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

The Cheque-duty.

SIR,—I am rather surprised to find from your leader, in your issue of last week, on the new taxes that you seem inclined to support the Chancellor in his imposition of an extra penny on cheques. As a corrective, I venture to send you a copy of a resolution passed by the Board of the Manchester Guardian Society for the Protection of Trade, which will show you what the Manchester merchants think of the new tax. If the proposal be carried out, and I earnestly hope it never will, it will prove a constant source of annoyance and a great obstacle in the way of the transaction of business.

Yours faithfully,

Manchester, April 22.

GEO. S. WOOLLEY.

Resolution passed by the Board of the Manchester Guardian Society for the Protection of Trade, 15 Fountain Street, Manchester, at a special meeting, held April 21, 1902.

That this meeting of the Board of Directors of the Manchester Guardian Society for the Protection of Trade, which comprises over six thousand business men and firms in Manchester and a large surrounding neighbourhood, is of opinion that the proposed additional tax of a penny on cheques is impolitic—on the grounds that it will discourage the use of cheques in small businesses; will discourage the useful and increasing practice of keeping banking accounts by small traders; and will be a retrograde step, leading in a considerable measure to a return to the practice of cash payments, which must tend to the hoarding of coin with its temptations, dangers, and disadvantages; that these discouragements to the use of cheques will be found to be so considerable in their result that the yield of the tax will be much smaller than expected; the Board therefore ventures to hope that the suggested tax will be abandoned.

[Note by the Editor.—A resolution in similar terms was passed by a meeting of London bankers and merchants held on the same day, and the very general opposition to the tax is practically certain to secure modification of it. See note on page 675.]

Mr. Glyn-Jones, Secretary of the Proprietary Articles Trade Association, has addressed the following letter to the Chancellor of the Exchequer.

SIR,—I am requested by the committee of the above association to respectfully call your attention to their views upon the proposed increase in the stamp-duty upon cheques. The association consists of about three thousand retail chemists, and of over eighty firms who are either manufacturers of, or wholesale dealers in, proprietary articles. The members of this association represent a class of traders upon whom the increased tax will fall, proportionately, more heavily than upon most traders. The volume of business transacted by chemists and druggists generally, is small, and in thousands of cases the total weekly turn-over does not exceed 12*l.* to 14*l.* The number of cheques used cannot be safely estimated by the amount of money involved. The variety of articles stocked, and the many varied sources of supply necessitate the keeping of an unusually large number of accounts, and in consequence a chemist in a small way of business often draws as large a number of cheques as other traders whose volume of business is tenfold more. Payment by cheque is the safest and most convenient form of remitting either large or small amounts, and there are other reasons why it is of the utmost advantage to all concerned that traders, however small their businesses may be, should keep banking accounts. It is feared that, if, in addition to the bank charges, every payment made through the bank is to cost 2*d.*, very many small traders will give up keeping banking-accounts.

My committee are also of opinion that the additional cost of cheques will so reduce the number that will be drawn, that the enhanced rate of duty will not produce an increased revenue. In their opinion the more likely result will be that, whilst causing much interference with the present practice and custom of business firms in regard to the payment of their accounts, the change will produce little, if any, increase in the revenue from cheques. As an instance of the probable reduction in the number of

cheques, I would point out that this Association receives during the year from its members, thousands of cheques varying in amount from 5s. to 21s. A small proportion of our members at present, instead of drawing a cheque for the amount, request one or other of the wholesale houses with whom they do business to pay the amount annually and charge it to their accounts. The increased duty is likely to lead to the majority of our members adopting this method of payment, and, if so, 50 to 100 cheques will suffice where 3,000 were necessary before. The committee believe that charitable and other institutions and associations will be likely to suggest some such method of remitting subscriptions.

Upon the grounds that the increased duty will be felt unduly and disproportionately by the small trader, who already bears more than his share of taxation, and that it is unlikely that the increased tax will produce a revenue which would compensate for the inconvenience and consequent irritation it will cause, my committee, with great respect, urge you to withdraw the proposal. —I am, &c.

The Invasion of Scotland.

SIR,—There is a pretty general opinion throughout the South of Scotland, amongst those best informed, that Boots (Limited) are about ten years too late in crossing the border to do any good to themselves. I agree with this. Things are very keen cut over all the South of Scotland, and, for anything I know to the contrary, the North is in no way behind. I do not think it would be difficult for Scotland to deal this company a blow, which would react favourably on our oppressed brethren in England.

I think Glasgow chemists do well to keep as private as possible any steps they may be taking, in view of fresh competition; but as this is a matter which affects Scotland generally, an effort might, with advantage, be made to have a general conference of Scotch chemists, with a view to harmonious and united action. I have ever stood by the doctrine that the chemist's enemy is not the neighbouring chemist, but the grocer, the store, and the unqualified competitor generally; and this view has made far more progress in Scotland than in England. It is this spirit of harmony and unity which has rendered the positions of the lawyer and the medical man practically impregnable in this country, and in this spirit rests the salvation of the chemist. The clear duty of the chemists in any district is not to fight amongst themselves about who is to get the business left to qualified men by unqualified, but to fight shoulder to shoulder against unqualified men securing business, to the proceeds of which they have no moral right. By grasping this fact, chemists in a district can not only defy fresh competition, but they can really better their own position by getting back from unqualified men actually in the field business already alienated. There never were more drugs used in this country than are being used at the present time. The point for us to remember is that somebody must supply these drugs, and if we secure the supply the increased demand places us in a position to cut prices keen. If patent medicines must be sold without profit, it is better for us to sell them, and get a chance of pushing our own articles, than to allow some unqualified man to sell them and push his. Another point which chemists ought to bear in mind is that the stores' branch shop must pay a qualified man's salary, *plus* dividends, whereas the chemist has only his salary to secure. The chemist is really in a better position to cut than the store. Chemists will answer, "Are we not to have a larger income at 35 or 40 years of age than a young fellow of 25 can get?" I answer, "Yes. If you have been worth your salt, your personal connection as a chemist is worth another salary to you as large as a man of 25 can get." It must be remembered that the stores' branch has no personal connection, and we all know that in the drug-business personal connection goes a long way. Chemists have, in many cases, relied altogether too much on personal connection, however.

I think a man ought to make his income out of vigorous, up-to-date, healthy business tactics; and he can always get a supplement out of his personal connection, which the store cannot get. Yet another point. Stores, generally, have been in no way slow to throw dirt on chemists in the form of newspaper advertisements. I do not ask chemists to retaliate by throwing dirt on stores; but I think they might, in advertising, so word their advertisements as to let the community know that limited companies dealing in drugs are seldom controlled by men who know anything about drugs. I have found people actually incredulous, when

informed as to the real trades learned by men calling themselves cash chemists, and I am quite sure that in Scotland the shop known to be entirely controlled by a qualified man would have a large pull over a shop known to be controlled by grocers, tailors, and people of that type. Of course, this point is based on the assumption, as are all my other points, that chemists everywhere are prepared to sell patents without profit, and quote drugs in bulk, at prices which shall compare favourably with the lowest stores' and grocers' lists.

Dumfries, April 21.

JAMES REID.

The Council-election.

SIR,—Will you allow me a word in connection with the leading article on "Pharmaceutical Councils" in your issue of April 12? In that article you have, not for the first time, made a "dead set" at Mr. Councillor C. J. Park, of Plymouth, who is seeking re-election. You have taken the trouble to make an elaborate analysis of the number of times he has spoken at meetings and of the number of meetings he has attended. With regard to the former, everyone knows that the real work of councils is done in committee, and long speeches at Council-meetings are frequently nothing more than a waste of time and a species of "playing to the gallery." Such occasions often serve to illustrate the old proverb that "Speech is silver," but "Silence is golden." According to your own statement, Mr. Park has during the last three years attended no fewer than twenty-two Council-meetings, and, seeing that each of these meetings entails a railway-journey to and from town of about five hundred miles and a considerable expenditure of money and time, I think that fact alone is sufficient to prove that he has sacrificed much to justify the confidence which has been reposed in him at past elections. Mr. Park is an ordinary workaday pharmacist, and knows what it is to feel the fag of a long day behind the counter and to meet the keen competition of the present time. May I be allowed to say that at any rate the chemists of the West of England, many of whom are subscribers to your journal, will not thank you for endeavouring to unseat their well-tried representative, and they and their fellow-pharmacists in other parts of the country, while not objecting to fair all-round criticism, will wonder why you have taken the trouble to dissect Mr. Park's attendances, &c., and have allowed the other members of Council to go "scot free." Mr. Park is one of the rank-and-file, and is the sort of man we want on the Council, and those of us in the West who know him are going to vote for him, and our "brother-chips" in other parts will do wisely if they follow our example. I may say that Mr. Park has no knowledge of the fact that I am sending you this communication.

Yours truly,

C. T. WEARY,

Divisional Secretary, President of Plymouth, Devonport, Stonehouse, and District Chemists' Association.

[Mr. Weary is angry and may not, therefore, have looked into the records of the retiring candidates—so far as attendance and participation in discussions are concerned. We subjoin the figures; A=meetings attended, and D=number of times the members have joined in discussions:—

Messrs.	1899		1900		1901	
	A	D	A	D	A	D
Carteighe ...	10	12	10	27	9	20
Glyn-Jones ...	7	8	11	30	11	17
Harrington ...	11	1	8	5	11	4
Harrison ...	10	4	7	5	8	9
Park ...	7	1	8	2	7	0
Southall ...	7	0	6	6	8	6
Young ...	11	7	7	3	10	7

From long experience of the Council and its workings we know that the public meetings are a good index of how the members participate in the committee-work.—EDITOR C. & D.]

* * *Exceptional pressure on our space this week compels us to hold over Replies to Correspondents. We shall send proofs to those who ask for them.*

Festivities.

NOTTINGHAM DINNER.

The thirty-third annual dinner of the Nottingham and Notts Chemists' Association was held at the Victoria Station Hotel, Nottingham, on April 17, and although these gatherings are always of a most enjoyable character, this year's assembly constituted a record, for departures were made from conventional paths, and the arrangements were considerably elaborated on comparison with previous years. Mr. R. Fitzhugh, J.P. (the President), occupied the chair, and there was a large muster, including Mr. A. E. Beilby (Vice-President), the Mayor (Councillor E. N. Elborne), Ald. J. Bright, J.P., Mr. A. Page, J.P., the Chief Constable (Mr. P. S. Clay), and Messrs. A. Eberlin and W. Gill (Hon. Secretaries).

After dinner Dr. C. H. Cattle proposed "The Nottingham and Notts Chemists' Association." He said the organisation had been in existence thirty-five or thirty-six years, and interest in it was in no way diminishing. A great deal of its success was attributable to the able leadership of Mr. Fitzhugh (the President), who had presided over the work of the Society for a period of nineteen or twenty years. (Applause.) From the very first an important function of the Association had been the education of young men to take their part as chemists in the future. It would always be a pleasant recollection that he was associated with the educational work of the Association prior to the establishment of the University College and the revision of arrangements. The public of Nottingham owed a great deal to the skill which was shown by the chemists as a body in the dispensing of their prescriptions, and it seemed to him that the accurate dispensing of medicines for the sick was by far the highest function of the chemist. Mr. W. Gill responded. After referring to the educational work of the Association, he said, if the public were to be well and faithfully served, it was necessary that chemists should be better paid, and a thoroughly educated class. He considered that the Food and Drugs Act was one of the best friends the chemist really had. Mr. A. E. Beilby proposed "The health of the Mayor, Corporation, and Magistrates of Nottingham," to which the Mayor and Alderman Bright responded. Mr. C. A. Bolton proposed "The Visitors," on behalf of whom the Chief Constable responded. Mr. E. Gascoyne proposed "The Pharmaceutical Society."

Mr. F. R. Sargent, whose name had been coupled with the toast, said the educational policy of the Society had often been criticised, but the future would see the chemist much more of a professional man than he had been hitherto. In the matter of analysis the chemist to-day did not do a tithe of what he would in the future. Mr. A. Eberlin proposed "The health of the President," and Mr. Fitzhugh said as long as he was able he would take the deepest interest in the Society. He was pleased to see so many present who had benefited by the Society, and he hoped it would continue to be regarded as it was now—the leading provincial organisation of its kind. (Applause.)

The musical items which interspersed the speeches were rendered by the Cecilia Glee Quartette, with Mr. A. Williamson as accompanist.

BRADFORD DINNER.

The annual dinner of the Bradford Chemists' Association was held on April 17 at the Royal Hotel. The chair was occupied by the President (Mr. Arthur Hanson), and a company of forty-four included Alderman J. Harrison (Sunderland), Mr. F. C. Long (Leeds), Mr. R. C. Walshaw (Huddersfield), Mr. R. Broadhead (Dewsbury), Mr. A. R. Tomlin (Barnsley), Mr. W. Pollard (Wakefield), Mr. Gibson Dixon (Halifax), and Mr. W. R. Black (Halifax).

Mr. A. R. Tomlin proposed "The Bradford Association," and expressed the opinion that the Council of the Pharmaceutical Society was all the better for the influences which were brought to bear upon it from Yorkshire.

Mr. F. A. Wilcock (Hon. Secretary of the Association), responding, said that all the Yorkshire Associations would be strengthened by the formation of the proposed West Riding Federation, and that there was no reason why that new organisation should in any way interfere with the national Federation.

Alderman Dunn proposed the toast of "The Pharmaceutical Society," expressing his great satisfaction that the traditions of the Society had been so far broken through, that Mr. Newsholme had been elected as the first President from the provinces, and that there was now an excellent scheme in operation for the representation of every part of the country by district secretaries. He hoped that before long something would be done in the way of making the Pharmaceutical Council more fully representative of the provinces. Whilst he did not want to say anything in disparagement of the services of the London members of the Council, who had done such good work for the Society, it was obviously impossible for gentlemen who had spent all their lives in London to understand the difficulties and the aspirations of the provincial members of the Society.

Alderman Harrison, in responding, spoke of the new Pharmacy Bill. They in Bradford, he said, seemed inclined to depart from the principles of the Act of 1868, whereas the Council of the Pharmaceutical Society wished to give these a wider and more perfect application. That Act laid down the principle that no person should assume the title of chemist and druggist or deal in poisons unless he was qualified under the Act. They in Bradford were rather inclined to extend that principle, so that medicines could only be sold by registered persons. He did not think that Parliament would listen to any such step as that. The cry of pharmacy for the pharmacists was a fine cry enough, but it was not practical. The Council did in the Bill try to go a step further than they had gone in the Act of 1868. In that Act the monopoly of the qualified pharmacist was confined to the selling of scheduled poisons, but in the new Bill they were going a step further in asking that the dispensing of physicians' prescriptions should be confined to registered men. In that they were taking a wise, a practical, step, for there was nothing more likely to commend itself to the judgment of those who were called upon to pass judgment upon such matters, than that medicines of such potent character as were now prescribed by physicians should be dispensed only by properly trained and qualified men. Although it might be said that this was a small matter by comparison with the sum total of the drugs which they should have in their hands, he could assure them that it was in reality an important matter. He hoped that, as time went on, and there was more enlightenment in regard to the potent character of the drugs dispensed, it would be seen that such progress had been made that one who might have been a thoroughly qualified man for the work of thirty years ago would be likely to be hopelessly at sea if placed behind the counter to-day. He quite differed from the conclusion that they in Bradford had arrived at, that the present was not an opportune time to take up the question of a curriculum. He believed that if the chemist and druggist was to hold his own, and to be in a position in which he might look for a further extension of powers from Parliament, he must be thoroughly qualified.

Other toasts followed whilst the intervals between the speeches were filled in with music rendered by Mr. Bailles and Mr. Sol Taylor, and a ventiloquial sketch by Mr. H. C. Dutton.

CARDIFF PHARMACEUTICAL SOCIETY.

The first smoking-concert of this Society was held on Wednesday, April 23, at the Park Hotel. Mr. Robert Drane presided, and there was a good attendance, several members of the medical profession and representatives of some of the wholesale houses being present. An excellent programme had been prepared, the artists including Miss Jones (daughter of Mr. J. A. Jones, last year's vice-president), Miss Hilda Evans (of the Welsh Ladies' Choir), Mr. W. J. Shapland Dobbs (of the Goodwillie Singers), and Messrs. W. A. Arbuckle, H. Vincent Morgan, Luxton, Gerhold, Poole, and Nolan. The programme had been arranged entirely by Mr. A. J. Bellamy, the Hon. Secretary.

The illuminated address presented to Mr. A. Hagor, expressive of the obligation of the members to him for the way in which he managed the affairs of the society as their first president, was on view. It was enclosed in an oak frame, and signed by Mr. R. Drane on behalf of the members, who placed on record their consciousness that the success of the Society was largely attributable to Mr. Hagor's energy and enthusiasm and capacity for business.

Trade Report

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: April 24.

THE week under review has been duller than usual, and complaints that there is "nothing doing" are heard in many quarters. Quinine is practically a dead-letter, no transactions being reported in the "outside" market up to Wednesday. Morphine is unaltered and in steady demand. Holders of cannabis indica have again advanced their prices, and higher prices have been obtained for Japanese wax. Bachu-leaves are firmer, and so is shellac. Jalap is flat and lower, and crude camphor is also cheaper. Gamboge is firmly held, and menthol, although cabled again firmer from Japan, is flat here. Orris remains very cheap, and scammony root is firm and scarce on the spot. Potashes are easier. Cod-liver oil is unaltered, and American HGH peppermint oil is a shade easier on the spot. Strychnine is offered very cheaply, and pilocarpine is lower. The following are the principal changes of the week:—

Higher	Firmer	Easier	Lower
Cannabis indica	Ammonia sulphate	Chillies	Camphor, crude
Gambier	Buchu	Ginger (Cochin)	Ginger (Japan)
Vanilla	Oil, linsced	Potashes	Jalap
Wax, Japanese	Shellac		Pepper, white and black
			Pilocarpine

Arrivals.

The following drugs, chemicals, &c., have arrived at the principal ports of the United Kingdom from April 16 to 23, inclusive:—Acid, citric (@ Bordeaux), 20; acid, tartaric, 16; aloes (@ Bombay) 49 cs., (@ Mossel Bay), 17 cs.; arcea (@ Marseilles), 13, (@ Colombo) 166; argol (@ Spain), 40; arrowroot (@ Sydney), 5; asaetida, 35; borate of lime (@ Mollendo), 8,031; borax (@ Chili), 1,240; cantharides, 4; cardamoms, 244; caraway-seed, 285; cascara sagrada, 360; castor oil (@ Calcutta) 1,617 cs., (@ Coconada) 255 cks., (@ Antwerp) 63 brls., (Ital.) 41 cs., (@ Marseilles) 111, (Belg.) 112; chamomiles, 10; cinchona (@ Calicut) 386, (@ Marseilles) 47, (@ Colombo) 151, (@ Mollendo) 480; citrate of lime (@ Palermo), 38; cocculus indicus, 300; cod-liver oil (@ Aalesund) 166, (@ Bergen) 10, (@ Christiania) 50; cream of tartar (@ Barcelona) 15, (@ Bordeaux) 97; drugs (@ Smyrna), 30; essential oils (@ Messina), 178; eucalyptus oil (@ Melbourne), 26; drugs (@ Trieste), 66; galls (Persian), 279; gentian, 15; ginger (@ Bombay) 385 pkgs., (@ Cochin) 547, (@ W.C. Africa) 1,201 bgs., (@ Calicut) 200 hgs. 25 cs., (@ New York) 255; glycerin, crude (@ Adelaide), 190; guinea-grains, 2; gum olbanum (@ Aden), 39; gum sandarac, 307; gum tragacanth, 745; gum, unenumerated (@ Persian Gulf), 1,072 bgs. 808 pkgs.; honey (Chil.) 235 (Calif.) 500 cs., (@ Ancona) 100 cs.; insect-powder, 35 pkgs.; kaint, 1,500 bgs.; kino (@ Cochin), 25; kola (@ Ceylon), 1; lemon-juice (@ Messina), 30 pps.; lemongrass oil (@ Cochin), 203; lime, acetate of (@ New York), 1,592 bgs.; lime-juice (W.L.), 15 pns.; liquorice-paste (@ Smyrna), 100 cs.; nux vomica (@ Bombay) 320 bags, (@ Mangalore) 400, (@ Cochin) 256; opium (@ Smyrna) 70, (@ Colombo) 20, (@ Persia) 171; orris (Ital.), 24; pepper (@ Bombay), 361; peppermint oil (@ Hamburg), 10; potashes (@ Portland), 29; potash chlorate (@ Gothenburg), 143; quicksilver (Span.) 5,000, (Ital.) 30; saffron, 23; sandalwood (E.I.), 568; sarsaparilla (@ Hamburg), 68; shollac 1,555, button ditto 526; soda acetate, 40; soda bicarbonate (@ New York), 328 bgs.; soda crystals (@ Antwerp) 160, (@ Ghent) 1,000; sugar-of-lead, 64; sulphur (@ Catania), 183; tamarinds (@ Barbados),

150 brls.; tartar (@ Rotterdam), 7; tartar emetic (@ Hamburg), 26; turmeric (@ Bombay) 195, (@ Calcutta) 500; vanilla (@ Marseilles), 51 cs.; wax, bees' (Mor) 6, (Chil.) 43, (@ Marseilles) 25, (@ Havre) 8, (Aust) 8 (@ Antwerp) 13, (@ Hamburg) 46, (Ital.) 34; wax, ceresin (@ Dusseldorf), 11; wine-lees (@ Marseilles), 180.

German Customs Tariff.

The Customs Tariff Committee of the Reichstag have adopted Clauses 131, 135, and 133 of the Tariff Bill without amendment, placing a duty of 8m. per 100 kilos. on egg-yolk if intended for food. Yolk if prepared for manufacturing purposes or otherwise treated is exempt from duty. Albumen is also free. The Committee also disposed of Clauses 137 to 144, dealing with honey, beeswax, succinacet, isinglass, &c. In the case of Clause 137 the maximum weight up to which honey in hives with live bees is to be admitted free of duty was reduced from 20 kilos. to 15 kilos. The other clauses were adopted as they stood.

Heavy Chemicals.

There is a slightly better demand both for main and miscellaneous products being experienced in the heavy-chemical market, and this is apparent both on home and export account. Matters, however, cannot be otherwise described than quiet, as there is certainly room for much improvement. Values, with few exceptions, continue without change from recent reports.

ALKALI PRODUCE.—Ammonia alkali continues steady and in brisk request. Bleaching powder and caustic soda are both moving better than they have been doing of late. Soda crystals are in better demand, whilst salteake, chlorates, and yellow prussiates keep very quiet, and generally are depressed.

BENZOLS dull: 90 per cent. at 8½d., and 50 per cent. at 7½d. per gal.

SULPHATE OF AMMONIA still maintains a very firm position, and tendency is towards higher figures.

ALUMINA PRODUCTS.—The all-round demand for the various different products continues to be very steady and satisfactory. Values are without change, and likely to remain so. Crystalline alum moving well, both for home and export: loose lump, 5l. to 5l. 5s. per ton; lump, in tiers, 5l. 5s. to 5l. 10s. per ton; ground, in bags, 5l. 12s. 6d. to 5l. 17s. 6d. per ton, with usual extras for various sized casks. Sulphate of alumina, best qualities and pure white, practically free of iron, 87s. 6d. to 95s. per ton, in ordinary casks, with customary allowances for bags and loose slabs. Aluminous cake, 52s. 6d. to 60s. per ton. Aluminoferric, 55s. to 65s. per ton, in accordance with condition and package. Hydrate of alumina, purest and highest strength Al₂O₃, 11l. 15s. to 12l. 5s. per ton, in large casks. Hydrate of alumina, special pulp, 12s. 6d. to 15s. per cwt. Hydrate of alumina, special pulp, dried, 37s. 6d. to 38s. 6d. per cwt., in usual casks; ground, 38s. to 39s. per cwt. Aluminate of soda, highest strength Al₂O₃, and carbonate of alumina, 35s. to 37s. 6d. per cwt, according to quantity, &c.

Liverpool Drug-market.

Liverpool, April 23.

CASTOR OIL.—The market is quite free from any fresh features of interest. Good seconds Calcutta is to be obtained at 2½d. per lb. on the quay, and 2½½d. in store. First-pressure French finds sellers at the same prices. A sale of second-pressure French is reported at 2½½d. per lb.

GRAINS OF PARADISE.—A further sale of 6 bags is reported, at 60s. per cwt., and now 65s. is asked for the small stocks remaining.

CALABAR BEANS.—Two bags at auction found a bidder of 10½d. per lb. The owner's idea was 1s. 2½d., and they eventually changed hands at 1s. 1d.

AFRICAN GINGER.—The market is entirely cleared of new crop, and the only parcel offering is 5 tons afloat, at 36l. per ton. Much higher prices are expected, as the crop is said to be over.

HONEY is in slow request, with little or no business passing. Values are not quotably changed, but sellers show a disposition to meet the views of buyers.

CHILLIES (S.L.).—Fifteen bags rather brown offered at auction and brought forth a bid of 40s., but owners declined to sell at this price, wanting 45s. per cwt.

CANARY-SEED.—The week has been marked by a series of sales ranging from 40 to 120 bag-lots, 35s. to 35s. 6d. per qr.

AR-ENIC is quiet, at 13l. per ton net.

SULPHATE OF COPPER is steady, at 19l. per ton.

ACACIA SORTS.—Importers are all talking of better prices in consequence of the short supplies from the Soudan. Forty serons of hard amber sorts realised 32s. per cwt.

BEEWAX.—The stocks available on the spot are being reduced to very narrow compass. A further arrival of Chilian has taken place by the s.s. *Orellana*, but it is not expected to affect the market-price. Value of grey to yellow wax remains at 7l. 5s. to 7l. 10s. per cwt., and pale yellow, 7l. 12s. 6d. to 7l. 17s. 6d.

QUILLAIA.—Bids for large quantities under 13l. per ton have been refused, holders remaining very firm at the figure named for their stocks.

German Drug-market.*Hamburg, April 22*

Our drug-market continued quiet; very little business doing at present.

AGAR-AGAR is firm; spot has sold at 300m., and forward 295m. per 100 kilos.

ANTIMONY is also firmer, at 25m. per 100 kilos.

ANNATTO-SEED.—Some arrivals have been sold at about 28s.

CANTHARIDES is getting scarce, at 525m. per 100 kilos.

CEVADILLA SEED is dull and lower, at 92m. to 91m. per 100 kilos.

CUMIN-SEED is firmer, at 50m. to 51m. per 100 kilos.

ERGOT is very firm; for Russian 340m. per 100 kilos. is asked.

ELEMI is tending lower, at 190m. per 100 kilos.

MENTHOL, for spot delivery, is scarce, at 29½m. to 30m. per kilo.; higher prices for shipment are asked from Japan.

IPECACUANHA is quiet; Rio is quoted 22m. to 21½m., and Cartagena 9¼m. per kilo.

KOLA is firm, at 45m. per 100 kilos.

SUGAR-OF-MILK is quoted 78m. per 100 kilos.

COD-LIVER OIL is very firm; old crop costs 105m., and new crop 110m. per barrel.

American Drug-market.*New York, April 15.*

Business is rather quiet, and the market has a tame appearance.

ALOES.—Cape is in reduced supply, and holders are asking 6½c. to 7c. per lb.

BEE-SWAX is firm, with only small parcels offering at prices ranging from 30c. to 35c. per lb., according to quality.

BUCHU-LEAVES are in good demand, and the market is firmer. Prime green leaves are quoted up to 20c., though less will buy. Ordinary are offered down to 16c. per lb.

CASSIA OIL is easy, and high-test oil is offering at 62½c.

COD-LIVER OIL is moving upward, in sympathy with primary markets. A few small lots might be had at \$27, but \$28 is generally asked.

ERGOT.—Russian is quoted 39c. to 42c., and Spanish at 40c. to 42c., but business is limited.

JALAP is easy under increasing supplies, and values show a decline to 10c.

MANDRAKE (Podophyllum) has sold at 4½c., and more can be had at this figure.

MENTHOL is easier, and the quotation of \$3.90 to \$4 can be shaded for large lots.

OIL OF PEPPERMINT demand is slow, and holders seem more anxious to realise. Supplies are offered at \$1.65, and could probably be obtained at a concession from this figure. The position of the article does not seem to warrant this decline, as it is not likely that this year's crop will exceed that of last year to any extent.

OPIMUM is slow of sale, and the open quotation of \$2.90 for case-lots can be shaded.

SENNA is in active request, chiefly the Tinnevely variety, for which 5c. to 14c. is asked, according to quality.

Cablegrams.

BERGEN, April 23, 6 P.M.:—The cod-liver oil market is quiet, at 105s per barrel, f.o.b., for best non-congealing Lofoten oil. The catch of cod to date amounts to 34,700,000, against 30,055,000 at the same time last year. This is expected to yield 17,095 barrels, against 27,640 barrels in 1901. At Finnmarken a small beginning has been made.

* * * *

HAMBURG, April 24:—Refined camphor is unchanged. Condurango and cevadilla-seed are quiet. Cod-liver oil is firm.

* * * *

NEW YORK, April 24:—Business is dull. Opium is easy at \$2.85. Quinine is unsettled at 28c. to 30c. per oz. Golden-seal is easier at 50c. per lb. Cape aloes is scarce at 7c. Jalap is easy at 10c. per lb., and buchu-leaves are dull, 16c. per lb. being wanted for sound leaf. Peppermint oil is easy at \$1.65 per lb.

ARROWROOT.—At auction on Wednesday, Bermuda was bought in at 1s. 5d. per lb. Fine St. Vincents in tins sold at 3¾d.; good in barrels was bought in at 2d. per lb.

BALSAM PERU.—According to a continental report the "syndicate" of producers in San Salvador has recently been dissolved, which has led to an easier feeling there. On the spot genuine thick balsam is practically unobtainable, but thinnish is offered at 6s. 3d. per lb.

BUCHU firmer since the sales, 8½d. to 9d. per lb. being wanted for good green sound leaf.

CAMPHOR.—For July-September shipment Formosan crude camphor has been reduced by the monopoly to 135s. per cwt., c.i.f., but there is no disposition to operate for that position. Japanese crude for April-May shipment is quoted 145s., c.i.f., with buyers at 140s. Spot is scarce.

CANNABIS INDICA.—Good green tops are 3d. per lb. dearer, 2s. 6d. being now the price; and siftings, which are very scarce, are quoted 2s. 3d.

CANTHARIDES.—Natural Russian is quoted 2s. 3d., and sifted 2s. 4d. per lb., c.i.f.

CASCARA SAGRADA.—Business is reported at 25s. per cwt., spot.

COCOA-BUTTER.—The auction to be held at Amsterdam on May 6 will consist of 80 tons Van Houten's, 3 tons Helm, 13 tons de Jong and 10 tons Migeon brand, while on the same date here 100 tons Cadbury's will be offered.

ERGOT is scarce, but a little Russian can be had at 1s. 8d. per lb. It is said that the only parcel of Russian offered on the Hamburg market is mixed with ergot of wheat; 1s. 6½d. per lb., c.i.f., is quoted for it. Spanish for delivery is quoted from Hamburg at 1s. 7d., c.i.f.

GALLS.—Chinese are easier, with sellers at 4s. 9d. per cwt., c.i.f.

GAMBOGE remains very firm. Fine Siam pipe has been sold at 16d. 10s. to 17d. per cwt., and pickings at 14d.

GINGER.—According to a Colonial-office report the exports from Jamaica were

	1899-1900	1900-1901	
Cwt. ...	20,205	26,350	+ 31.3 per cent.
£ ...	60,615	66,324	+ 9.4 "

JALAP is lower and pressed for sale. There are sellers of good heavy at 5d. per lb. net, spot.

KINO.—Most of the cheap lots of kino sold "without reserve" in auction last week have been resold.

LIME JUICE has been in good demand, but spot stuff is very scarce and firmly held. Good raw West Indian has been sold up to 1s. 5d. per gallon.

MENTHOL is cabled firmer again from Japan, but here the market is flat and practically nothing doing.

MORPHINE.—Makers report a steady demand at the unaltered price of 4s. per oz. for hydrochloride powder. With every indication of a good crop of Turkish opium this season, there is not much prospect of the present low value improving.

OIL, ANISE STAR.—The spot price is 4s. 3d. per lb. with small sales thereat.

OIL, BERGAMOT, shows no change, 7s. 3d. per lb., c.i.f., being quoted by one importer.

OIL, CAJAPUT.—Although the price in Amsterdam is 2s. 9d. per bottle, good green can be had on the spot at 2s. 3d.

OIL, CASTOR.—Calcutta is quiet at 2¾d. per lb. for seconds.

OIL, CHAULMOOGRA, is offered at from 2s. 3d. to 2s. 10d. per lb., according to quantity.

OIL, COD-LIVER.—The London market is quiet, and although there is no change in the quotations the tone is not quite so firm as it was. There is a good inquiry for second quality oil, but little is to be had. The Lofoten fishing is now over, and the total yield is estimated at 9,595 hectolitres against 15,889 hectolitres last year. Newfoundland oil of last season's crop has been sold at 4s. per gallon (equivalent to 100s. per barrel), and is scarce. Our Bergen correspondent writes on April 19 that the market has assumed a more quiet tone, and no further advance has taken place probably owing to the fact that there has been little buying for foreign account. There is likely to be no further movement either way until the result of the Finnmarken fishing is known. So far only a small beginning has been made. The quotation for best non-congealing Lofoten oil is unchanged at 105s. per barrel, f.o.b. Bergen. The exports from Bergen to date amount to 3,350 barrels against 3,203 barrels at the same time last year.

OIL, GERANIUM.—Both Bourbon and Algerian oils are very firm and scarce.

OIL, LEMONGRASS.—Two steamers have arrived from Cochin with 203 cases.

OIL, LIME.—West Indian distilled is obtainable at 1s. 6d. per lb., and hand-pressed at 4s. 6d. In last week's issue we inadvertently reported a sale in auction of hand-pressed oil at 3s. 3d.; the sale in question referred to a tin of sour orange oil.

OIL, PEPPERMINT.—For American HGH oil 8s. 10½d. per lb. is still asked, but it is quite probable that 8s. 9d. would now buy.

OIL, PETITGRAIN.—Paraguayan oil is a weak market, there being plenty of offers from Asuncion at 15s. per kilo. and less.

OILS, FIXED.—Cochin *Cocanut* oil is quoted 37s. spot, in hoisheads, and Ceylon 32s. 6d., spot. *Linseed* is firmer at 30s. 3d. in barrels, landed terms. *Rape* steady at 25s. 3d. per cwt., spot, and 26s. 6d. for refined. *Cottonseed* unchanged at 25s. 6d. to 26s. 6d. for refined. *Pine Lagos Palm* is 25s. 6d. per cwt.

OPIMUM.—Smyrna, April 11: The market is quiet, sales amounting to 30 cases talequale descriptions at the equivalent of 7s. 6d. to 7s. 9d. per lb., c.i.f. The arrivals amount to 3214 cases, against 4007 cases at the same time last year. The fine qualities of opium are much sought after in view of the low price to which the article has fallen, but large holders show no disposition to realise, preferring to hold on until the harvest commences.

ORRIS.—Very cheap, fair Florentine sorts being quoted by one importer at 21s. 6d. per cwt., c.i.f.

PILOCARPINE was reduced last week to 62s. per oz. for 1-oz. lots.

PIMENTO.—The exports from Jamaica during 1899-1900 amounted to 123,973 cwt. (valued at 173,562l.), against 100,547 cwt. (valued at 110,602l.) in 1900-1901, or a decrease of 18.9 per cent. in quantity, and 36.3 per cent. in value.

POTASHES.—The scarcity has been relieved by several arrivals lately, and Montreal pot are easier at 25s. 9d. per cwt., and 40s. for pearl.

QUININE.—No business is reported this week, and quotations are nominal. The spot price is about 1s. 2d. per oz.

SAFFRON is firm at 23s. 6d. per lb., net, for best Valencia. There are rumours of a syndicate being formed among the growers in Spain, but it is discredited here.

SCAMMONY-ROOT.—Is very scarce and firmly held at 30s. per cwt. on the spot.

SEEDS.—Russian *Anise* is quiet at 19s. 6d. per cwt. Dutch *Caraways* steady at 21s. 6d. per cwt. Morocco *Coriander* firm at 10s. per cwt. *Cumin* steady at 26s. per cwt. for Morocco, and 34s. to 35s. for Malta. *Canary* very slow at 36s. 6d. per quarter for Turkish. *Linseed* steady at 59s. to 60s. per quarter for fine. Morocco *Fenugreek* has been sold recently at 6s. 6d. to 6s. 9d. per cwt. for large parcels.

SHELLAC.—In auction 453 chests were offered, of which 80 sold at about 3s. per cwt. advance on last sales, the value of fair second orange TN being 118s. to 119s. Good red sold at 119s., and fair reddish part blocky 117s. to 118s.; 38 cases Garnet and 85 cases Batton were bought in. Privately the market has been rather firmer this week, owing to the scarcity of sellers. Forward delivery has been firm, and has fluctuated little; the business done includes 300 cases Augst delivery at 123s., and September 124s. per cwt.

SPICES.—On Wednesday, at auction, Cochin *Ginger* was easier; washed rough sold at 38s. per cwt. for rather small, and at 40s. for good bold in cases; Calicut brown rough was bought in at 48s., and "C" cut at 58s. Japan was 2s. per cwt. lower, fair to good quality selling at 30s. to 32s. per cwt. Jamaica in good supply sold with competition at steady prices, common to good common at 34s. to 40s. per cwt., middling dull to fair washed at 41s. to 47s. 6d., and good washed at 51s. to 57s. African is quoted 36s., and Bengal 42s. per cwt. Penang *Cloves* partly sold at 6½d. per lb. for ordinary. Zanzibar are offering at 3¼d. per lb. on the spot. The market for future delivery has been stagnant, and the quotation for June-August is lower at 3¼d. per

lb. Good Japan *Chillies* sold at 35s. 6d. and Nyassaland at 46s. to 51s. per cwt. Japan *Capsicums* were bought in at 25s.; good Nyassaland sold at 42s. per cwt. *Cassia-lignea* was bought in at 55s. per cwt., good broken at 50s. per cwt. *China-cinnamon* at 25s. per cwt., and *Cinnamon chips* at 2¼d. per lb. *Pimento* easier, ordinary partly sold at 2½d. to 3d. per lb. Black *Pepper* lower; Penang was bought in at 5½d. to 5¾d. per lb. and fine Wynaad at 6¼d.; good Alleppy sold at 5½d. Singapore is worth 5½d. to 5¾d. per lb. on the spot, and business has been done at 5½d. for June-August shipment. Fair Singapore white sold at 9¾d. per lb., being lower; good to fine was bought in at 10¼d. to 11¼d. Penang is offering at 9¼d. on the spot.

STICKLAC.—Siam to arrive is quoted 163s. per cwt., c.i.f.

STRYCHNINE.—The advent of a new American make of strychnine, which is being offered at very low prices, has unsettled this market, and may probably lead to a reduction in the combination price. Pure crystals of American make are quoted at from 1s. 6d. to 1s. 9d. per oz., the inside price for contract quantities of 500 oz.

SUGAR OF MILK.—American is quoted 40s. for small wholesale quantities. From Hamburg 38s., c.i.f., is quoted in ½-ton lots.

SULPHUR.—The stocks in Sicily at the end of March amounted to 275,537 tonnes of 13 Sicil. cantars against 201,196 cantars at the end of March, 1901.

TURMERIC.—Small sales of Bengal have been made at 15s. per cwt., and 11s. 9d., c.i.f., for arrival. Fair bright but bulby Madras finger has sold at 17s. 6d., and ordinary small lean shrivelled at 12s.

VANILLA.—In auction the small supply of 305 tins was offered, of which about 250 sold at firm to 1s. dearer rates. Fair to good Seychelles sold at from 10s. to 15s. per lb for 6 to 7½ in., 8s. 6d. to 9s. 6d. for 5 to 6 in., 6s. 6d. to 8s. 6d. for 5 to 5½ in., and 4s. to 7s. 6d. for 3½ to 5 in. Ordinary foxy 5 to 6 in., 7s. to 7s. 3d.; and common brown, 3s. to 6s. 9d. per lb.

WAX, JAPANESE, is dearer, 36s. having been paid for good squares on the spot.

Coming Events.

Wednesday, April 30

Public Dispensers' Association, St. Bride's Institute, Bride Lane, Ludgate Circus, E.C., at 8 p.m. General meeting.

Chemical Society, Burlington House, W., at 5.30 p.m. Papers to be read:—"The Preparation of Absolute Alcohol from Strong Spirit"; "The Vapour-pressure and Boiling-point of Mixed Liquids"; and "The Correction of the Boiling-point of Liquid from Observed to Normal Pressure"; by Mr. S. Young. "The Properties of Mixtures of the Lower Alcohols, with Benzene and with Benzene and Water"; "Fractional Distillation as a Method of Quantitative Analysis"; and "Vapour-pressures and Specific Volumes of Isopropyl Isobutyrate"; by Messrs. S. Young and E. C. Fortey. "Nitrogen-bromides containing the Propionyl Group," by Mr. F. D. Chattaway.

Edinburgh Chemists', Assistants', and Apprentices' Association, 36 York Place, Edinburgh, at 9.15 p.m. The annual business-meeting, when the Ewing Pharmacy prize will be presented and an address given by the President on "The Pharmacist in Literature."

Chemists' Managers' and Assistants' Society visit the factory of Messrs. Idris & Co. (Limited), Pratt Street, Camden Town, at 3.45 p.m. Tickets can be had from Mr. G. Cullwick, 48 High Street, Notting Hill, or Mr. C. E. Pickering (President), 52 Acacia Road, St. John's Wood, N.W.

Huddersfield Chemists' Association, Queen's Hotel, at 7.30 p.m. Smoking-concert.

London Chemists' Association. A meeting of the members resident in South London will be held at the Surrey Masonic Hall, Camberwell, S.E., at 3.30 p.m., to appoint a local Committee for South London.

Thursday, May 1.

Chemists' Assistants' Association, 73 Newman Street, W., at 9 p.m. Musical and social evening. Mr. A. W. Waring will preside.

Glasgow and West of Scotland Chemists' Trade Association Athenæum (Room 17), St. George's Place, at 8.30 p.m.



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TRANSATLANTIC BUSINESS.

THE Publisher desires to inform manufacturers and wholesalers that the issue of *THE CHEMIST AND DRUGGIST* for May 31 will be specially circulated to transatlantic buyers. Canada, the United States, and the West Indies will be thus covered, and, as export business in chemicals, medicines, and similar products with these countries is on the increase, the circulation of May 31 will be a good chance for improving the business of those who advertise in it.

Books to Buy.

For all about prescriptions: "The Art of Dispensing." 5s. 6d. by post 5s. 10d.
 For compounding specialties: "Pharmaceutical Formulas." 7s. 6d.; by post 7s. 10d.
 For apprentices: "Preliminary Examination Guide." 2s. 6d. by post 2s. 9d.
 For treatment of horses, cows, &c.: "Veterinary Counter-practice." 3s. 6d.; by post 3s. 9d.
 For testing stock: Proctor's "Pharmaceutical Testing." 2s. 6d. by post 2s. 9d.

From the Offices of the C. & D.

Summary.

FURTHER particulars of the Cancer Committee are given on p. 669.

GOOD HINTS on tablet-making by Mr. Sivewright are epitomised on p. 657.

THE PURE-BEER BILL has been defeated again, thanks to the scientific M.P.s (p. 675).

STUDENTS' VIEWS of the curriculum are expressed by a contributor in a note on p. 664.

THE names of those who have passed the Minor and Major this month are given on p. 661.

AN important High Court decision in regard to companies as persons is dealt with on p. 668.

THE CAIRO CHEMISTS' ASSISTANTS' ASSOCIATION is endeavouring to get shorter hours (p. 654).

BY THE WILL of the late Mrs. Sarah Southall several pharmaceutical families benefit (p. 677).

A SHOP in Newcastle-on-Tyne which has been a chemist's for 168 years, is about to be demolished (p. 650).

ARE WE DECADENT? is the question asked and answered *à propos* of the end of another winter session (p. 666).

THE FRENCH CHEMIST who has been in prison for a quarter of century as the murderer of his wife has been pardoned (p. 655).

ADULTERATION of SHELLAC with common resin is shown by Mr. E. J. Parry to be best detected by iodine-absorption (p. 670).

THE CHEQUE-TAX is likely to be modified. There is much opposition to it (p. 677), and the Chancellor of the Exchequer is climbing down (p. 675).

POINTS IN TRADE LAW regarding assistants breaking engagements, their agreements, and about the bending of customers' coins are reported (p. 671).

AN UNQUALIFIED ASSISTANT to the executors of a Bradford chemist has been fined under the Pharmacy Act for selling Kay's essence of linseed (p. 671).

MR. JAMES REID does not think Boots (Limited) will succeed in Scotland. He gives reasons why, and urges Scotch chemists to unite and cut proprietaries (p. 677).

EXTRACT of NUX VOMICA still commands attention, Mr. Fraser McDiarmid being the last to comment upon the official process, and advising acid extraction (p. 657).

A DOCTOR who died in the East-end last week said he had got strychnine from a chemist in mistake for morphine. A Coroner's jury is inquiring into the matter (p. 652).

THE STUDENTS' CORNER ANALYTICAL TOURNAMENT is concluded with the analysis reported in this issue. The winners are "Jegow" and "Algol," but four others get prizes (p. 648).

CARDIFF CHEMISTS' ASSISTANTS had the advantage last week of hearing their medical officer of health on the Sale of Food and Drugs Act. It is difficult, he says, to sample drugs (p. 658).

THE TURPENTINE TERRITORY of the United States is shifting owing to devastation of the old forests. Particulars of this, of the trade of last year, and the efforts to improve the industry are given on p. 667.

OUR OBITUARY COLUMN contains notes respecting Messrs. George Murdoch (Glasgow), Maxey (Wisbech), Leeming (Montreal), and the Secretary of the National Wholesale Druggists' Association, U.S.A. (p. 676).

THE PHARMACEUTICAL COUNCIL ELECTION offers profitable amusement to our subscribers and their assistants. We shall give three money prizes to those who send us postcards with particulars as specified in a note on p. 668.

BUSINESS in drugs and chemicals is intensely dull this week, and there are few changes of importance. Cannabis indica and Japanese wax are higher, buchu-leaves and shellac are firmer, and jalap and crude camphor are lower. Quinine is active, and morphine is in steady demand (p. 630).

A BIRMINGHAM CHEMIST who sold Lily headache-powders with the figure of a red cross upon them has been convicted, under the Merchandise-marks Act, at the instance of the maker of "Red Cross Powders." The defendant has appealed. We print photographs of the labels with our report on p. 672.

MR. WEARY, President of the Plymouth Chemists' Association objects to our selection of Mr. C. J. Park as a member of the Pharmaceutical Council who may give place to Mr. Campkin. He calls upon West of England chemists to support Mr. Park. Facts respecting the work of all the retiring candidates are appended to the letter (p. 678).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Tuesday, April 29, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, May 10. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

REPORTS.

The powder distributed to students on March 26 contained 6 parts of antimonious oxychloride, 3 parts of sodium hydrogen tartrate, and 1 part of lithium carbonate.

The calculated composition of such a mixture is—

Sb	42.0
Na	3.7
Li	1.9
Cl	12.4
C ₄ H ₄ O ₆	23.3
CO ₂	8.1
O	5.6
H	0.2
H ₂ O	2.8
	<hr/>
	100.0

The powder contained, however, as impurities, small quantities of lead, aluminium, iron, and calcium.

Samples of the powder were distributed to 72 students, and 23 reports were sent in for examination.

All our correspondents were successful in detecting antimony. The failures in detecting the other constituents of the powder were:—(a) Metallic radicals: Sodium, 4; lithium 12. (b) Acid radicals: Hydrochloric, 8; tartaric, 6; carbonic, 4. Besides the eight students who missed the hydrochloric radical altogether, ten reported it as a trace only.

This exercise has proved a decidedly difficult one in the hands of most of our correspondents, as may be inferred from the generally low scores in the list. The chief difficulty was one of a rather unfamiliar kind, and consisted in the fact that the antimonious oxychloride only yielded the ordinary reactions of chlorides in a distinct manner when something more than the ordinary mode of experimenting was resorted to. Boiling the powder with sodium carbonate and water for a short time did not decompose the oxychloride to any considerable extent, and hence the solution obtained, when tested for chloride, gave only slight indica-

tions with silver nitrate and nitric acid. Cold or slightly heated sulphuric acid was also practically without effect upon the oxychloride. Of the small number of students who succeeded in obtaining well-marked indications of the presence of chloride in quantity, some fused with sodium carbonate and detected soluble chloride in the fused mass; others treated the powder with dilute nitric acid and tested the filtered solution with silver nitrate; while others, again, heated strongly with concentrated sulphuric acid and detected the hydrochloric-acid gas evolved, or heated with concentrated sulphuric acid and black manganese oxide and observed the evolution of chlorine. One of the quickest and best methods for obtaining evidence of the probable presence of chloride in considerable quantity consisted in heating the powder with concentrated sulphuric acid until brisk effervescence (partly due to the decomposition of the tartrate) took place, and then holding in the upper part of the test-tube a glass rod moistened with a mixture of silver nitrate and dilute nitric acid. The liquid on the rod became markedly opalescent in a few seconds. The presence of the nitric acid along with the silver nitrate is necessary in order to prevent the formation of silver sulphite by the sulphurous anhydride produced from the sulphuric acid by the action of the tartrate. Silver nitrate used in this way is a test which may often be employed with advantage in the preliminary examination of complex mixtures.

Another cause of difficulty and error was the presence in the sodium-carbonate extract (to be used for the detection of acid radicals) of some dissolved antimonite, which gave reactions that were attributed in some instances to altogether different things.

Testing for the citric radical in the known presence of the tartaric radical is liable to uncertainty. Calcium tartrate is not completely precipitated on adding excess of calcium chloride to a neutral solution of a tartrate, even after prolonged standing in the cold; and the clear filtrate from such quantity of the precipitate as has been formed usually yields a further precipitate of calcium tartrate when warmed—a reaction which is often incorrectly attributed to calcium citrate. A thoroughly distinctive qualitative test for citrate in presence of tartrate is still wanted.

We would refer those students who failed to recognise as carbonic anhydride the gas which was evolved by the action of dilute hydrochloric acid upon the powder, to the method described in the *C. & D.* of December 28, 1901, page 1016, for dealing with traces of this gas. The quantity of carbonate in the present exercise was something more than a trace, however.

PRIZES.

The First Prize for the best analysis has been awarded to

H. M. WINTON, c/o Mr. Massey, chemist, Kelso.

The Second Prize has been awarded to

JOSEPH MATTHEWS, c/o Mr. Maxton, Abbey Corner, Kelso.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

H. M. Winton (1st prize)...	93	Alex. T. Hope	80
Joseph Matthews (2nd prize)	92	Flora McDonald	79
J. H. Williams	82	Conor	78
Westminster	82	Algol	76
		Edinburgum	74

F. R. M. M. ...	73	N. E. S. C. ...	57
Jegow ...	70	H. Johnson ...	56
Tanglewood ...	68	H. Willson ...	55
Glacialine ...	65	Talc ...	53
Aloes ...	64	Thurifer ...	53
Cribden ...	64	F. W. Caton ...	50
Rellim ...	62	Tungsten ...	47

TO CORRESPONDENTS.

Special Memoranda, suggested by this month's reports:—

1. Do not proceed to examine the sodium-carbonate extract for acid radicals until you have ascertained that a portion of it, after acidulation with dilute hydrochloric acid, does not yield any precipitate on the addition of hydrogen sulphide. Should it yield a precipitate, the whole of the sodium-carbonate extract must be treated in the same way with hydrogen sulphide and the precipitated sulphides removed before testing for acid radicals.

2. The fact that excess of hydrochloric acid produces a yellowish precipitate when added to the ammonium-carbonate solution in which the arsenic-group sulphides have been digested is not a proof of the presence of arsenic. The precipitate so obtained must be further subjected to confirmatory tests.

3. Flame-coloration tests must be very cautiously interpreted when sodium and lithium are both present. A number of students mistook the lithium coloration as seen through blue glass for that of potassium.

H. M. WINTON.—The tests you applied scarcely proved the absence of magnesium, since the fact that the sodium-phosphate precipitate gave the crimson flame-coloration due to lithium did not preclude the possible presence of magnesium also in the precipitate.

JOSEPH MATTHEWS.—The small quantity of the hydrogen-sulphide precipitate which remained undissolved by sodium hydroxide (and of which your analysis did not reveal the nature) consisted of lead sulphide. When it was dissolved in hot dilute hydrochloric acid, the solution evaporated to a few drops only, and potassium iodide added, a distinct yellow precipitate of lead iodide was obtained. You did not prove magnesium to be certainly absent.

WESTMINSTER.—We are at a loss to understand your failure to find chloride in the mass obtained by fusing the original powder with sodium carbonate. The same test gave a well-marked positive result in our hands. Carnot's test for potassium, on the other hand, gave us no positive result. Read also the reply immediately preceding.

CONOR.—The precipitate you obtained on adding chloroplatinic acid and alcohol to test for potassium was almost certainly due to ammonium salts which had not been completely decomposed by ignition. Special care must be taken to ensure that the ammonium salts, which adhere to the upper part of the porcelain basin in which the ignition is carried out are sufficiently heated to effect complete decomposition.

ALGOL.—On strongly heating the original powder with sulphuric acid, and then holding a rod dipped in solution of silver nitrate in the gases evolved, you should have obtained in the liquid upon the rod a white precipitate which would not entirely dissolve in nitric acid. This was the readiest means of proving the presence of a halogen. The reactions you attributed to the presence of arsenic were really due to antimony.

EDINBURGH.—We have not been able to confirm the presence of all the metallic radicals of which you found traces. On the other hand, more than traces of sodium and of the carbonic radical were present. The reactions which led you to conclude that strontium and potassium were present were probably due to lithium. Barium-group metals should be confirmed by the flame-tests.

TANGLEWOOD.—It would appear from your report that in order to test for arsenite you passed hydrogen sulphide through a solution obtained by boiling the original powder with solution of sodium carbonate. The solution so obtained certainly contained some antimonite, so that the formation of a yellow or orange precipitate did not prove arsenite to be present. We could not obtain the other reactions for arsenic which you mention.

CRIBDEN.—You should have stated how you obtained a solution of the original powder. If you dissolved it in hydrochloric acid, it was superfluous to add hydrochloric acid to the solution as a

test for silver, &c. If you did not dissolve it in hydrochloric acid, then the solvent employed should have been named. You do not give any proof of the presence of arsenic.

RELLIM.—The powder did not contain barium sulphate, and no white residue was left after boiling it for some time with dilute hydrochloric acid. The sulphuric radical which you detected was probably due to sulphate present in the sodium carbonate which you used.

H. JOHNSON.—You found the hydrogen-sulphide precipitate entirely soluble in sodium hydroxide, but you do not describe any examination of the solution you obtained, and you simply assume that it consisted of antimonious sulphide only. The possible presence of other metallic radicals besides antimony should have been tested for.

THURIFER.—More useful indications would have been obtained by heating the original powder in a dry hard-glass tube than by heating it on the point of a penknife. Had you employed the former mode of treatment, you could not have failed to observe the very distinct blackening which the action of heat produced. You omitted to give the necessary summary of the constituents you detected.

F. W. CATON.—See last sentence of reply to "Rellim."

THE ANALYTICAL TOURNAMENT.

At the beginning of the winter session we offered a *first prize* of books, value 2*l.* 2*s.*, and a certificate to the competitor obtaining the highest aggregate of marks in the six analyses for the months November, 1901, to April, 1902, and a *proxime accessit* prize of books, value 1*l.* 1*s.*, and a certificate to the competitor obtaining the second highest aggregate of marks in the six analyses. The competition attracted much attention both from new and from former correspondents, and some excellent work was sent in from month to month.

The first place in the tournament has been gained by "Jegow" (Mr. John G. Murdoch, c/o Wilkinson & Simpson, Limited, Newcastle-on-Tyne), with an aggregate of 551, made up, with remarkable steadiness, of 95, 99, 98, 94, 96, and 70, and to him the first prize is accordingly awarded.

The second place and prize are taken by "Algoi" (Miss Annie M. Barr, 57 Kemposh Street, Gonrock), with an aggregate of 527, made up, also with praiseworthy steadiness, of 92, 98, 94, 93, 74, and 76.

There is a tie for the third place, two competitors having 518 marks each, as follows:—

"Tungsten" (Mr. H. Longstaff, 223 Saltwell Road, Bensham, Gatehead-on-Tyne), 86, 96, 97, 93, 99, and 47; and "Edinburgum" (Mr. Joseph Tait, 21 Oxford Street, Edinburgh), 89, 96, 86, 76, 97, and 74.

To both we shall send certificates, and any two of the books published by THE CHEMIST AND DRUGGIST mentioned later. The first and second prize takers will kindly inform us what books they desire.

In December we further intimated two prizes of books to be awarded to the competitors who obtained the greatest proportional advance in the aggregate for the third, fourth, fifth, and sixth competitions over their aggregate for the first and second competitions.

The awards of these prizes for progress fall to "Glacialine" (Mr. C. R. Wilkins, 40 Church Lane, Hornsey, London, N.), whose two aggregates are 121 and 321; and to "Westminster" (Mr. A. H. Edgar, 100 Harrington Road, South Norwood, London, S.E.), whose two aggregates are 150 and 340. The highest figures reached by "Glacialine," and by "Westminster" were 94 and 95 respectively, while their lowest numbers in any monthly competition were 54 and 60 respectively. To each of these competitors we shall send copies of "The Art of Dispensing," Procter's "Manual of Pharmaceutical Testing" and "Practical Methods of Urine Analysis."

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Brevities.

The City branch of the Imperial Institute has removed from Cannon Street to larger premises at 49 Eastcheap, E.C.

At Derby, on April 22, a man named Mather was remanded on a charge of stealing four oil-barrels, value 18s., belonging to Messrs. Blunt & Evans, chemists, of Market Place, Derby.

At Derby on April 17, John S. Booth, described as a traveller for a large London firm of manufacturing chemists, was fined 3*l.* 6s. for travelling on the Midland Railway without a ticket.

In consequence of the great success that has attended the Colonial Exhibition at the Royal Exchange, the Gresham Committee have consented to its remaining open until Saturday, May 3.

At Portsmouth Police Court on April 21, a man named Brewin had to pay 15s. 6*d.* costs for keeping a dog which had attacked and bitten Councillor F. G. Foster, chemist and druggist, Landport.

All persons having claims against the estate of the late Mr. Hy. Eccles, chemist and druggist, 17 West Square and 9 Westborough, Scarborough, are requested to send them to Messrs. Turnbull & Son, solicitors, Scarthorpe, forthwith.

A well-known drapery house in the East of London is that of J. R. Roberts' Stores (Limited). The directors have just reported that the grocery branch, including drugs, has been discontinued, and the stock, with certain plant and utensils, disposed of. This resulted in a loss of 1,864*l.*

The annual meeting of the Society of Chemical Industry is to be held at Liverpool on July 9, 10, and 11. At the request of Dr. T. Lewis Bailey, the Corporation have granted members of the Society permission to inspect the electric-generating stations which are under the control of the City Council.

The Arsenic Revival.

The Royal Commission on arsenical poisoning held a sitting at the Westminster Palace Hotel on April 17, when evidence was given by Dr. Woodyatt (medical officer at Halifax Infirmary), Mr. Thomson (analytical chemist of Manchester), and Mr. Fairley (public analyst of Leeds).

Mr. M. D. Penny, analyst to the Holderness Agricultural Club, in his annual report says that last October, whilst a party of gentlemen were out shooting in Holderness, they came across several dead birds, which had not been shot. One, a fine young partridge in splendid condition, was sent for analysis. It turned out to have been poisoned by arsenic. The poison was traced to the wheat in the bird's crop, and as the birds were nearly all found in a newly sown wheat-field, it is surmised that the arsenical dressing with which the wheat had been treated had been applied too freely or very carelessly.

L.C.C. Items.

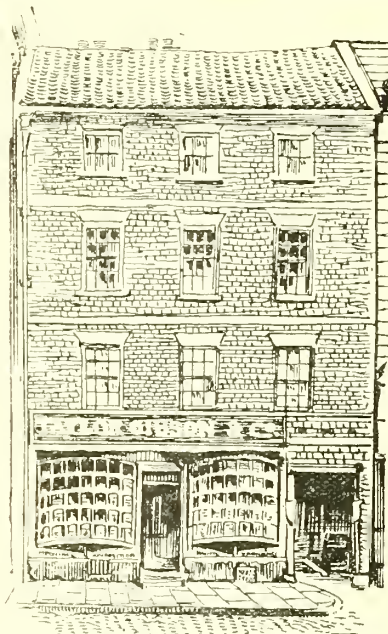
It was reported by the Main Drainage Committee that the chemist had laid before them his fourth report on the experimental bacterial treatment of sewage, and the Council agreed that the report should be printed.

On the recommendation of the Building Act Committee, consent was given to Messrs. Kemball, Bishop & Co., chemical-manufacturers, of Three Mill Lane, Bromley-by-Bow, for the re-erection of a building, used as offices and a lodge, on the south side of the lane.

An Old Drug-shop.

Mr. Joseph Roberts, chemist, 17 Bigg Market, Newcastle-on-Tyne, has absorbed the business of Messrs. Taylor Gibson & Co., chemists and druggists, 30 Bigg Market. The old-fashioned shop of the latter firm, with its bow windows and small panes, has been carried on for 168 years by successive

generations of the same family or their heirs, and is to be closed in a few days. When the premises were opened in 1734 the business carried on was that of "Retail Dispensing Druggists; Oil, Spice, and Cattle-Medicine Merchants," and as such it has continued up to the present time. A Taylor Gibson appears to have been a member of the firm 100 years



30 BIGG MARKET, NEWCASTLE-ON-TYNE.

ago, although the style of the firm in the earliest copy of Ward's first "Directory" is Gibson & Moor, the "Taylor" being a Christian name and not a surname. Until quite recently Mr. E. Smith, East Parade, Newcastle, had been connected with Taylor Gibson & Co. for half a century. He has now disposed of his interest in the business to Mr. Joseph Roberts, who, as already stated, will merge the same in his own business and premises immediately opposite. The old premises—as far as the freehold is concerned—have been bought for business purposes, and it is probable that the venerable bow windows, after resisting innovations for a century and a half, will soon disappear.

Mr. White's Report.

The report of the Derbyshire county analyst (Mr. John White) for the year 1901 states that the number of samples submitted to him under the Sale of Food and Drugs Act during the year was 1,032, of which 82 were adulterated and 35 more of inferior quality. Of 62 samples of drugs 5 were adulterated. The percentage of adulterated articles, calculated upon the total number analysed, was last year 7.9, against 7.2 in 1900, 7.5 in 1899, 6.2 in 1898, 6.8 in 1897, 7.3 in 1896, 8.3 in 1895, 14.3 in 1894. "This shows," continues Mr. White, "that a slight increase in the percentage of adulterations has occurred in the county during the past year, and also that the actual number of adulterated articles was higher than in any previous year. This increase, however, is happily not due to any outbreak of wilful or fraudulent adulteration, but is mainly caused by the discovery of arsenic in a number of samples of compressed yeast in the early months of the year. The amounts present varied from $\frac{1}{50}$ to $\frac{1}{500}$ gr. of arsenic per lb. of yeast. Used in the ordinary proportion for making bread, the worst of these samples would introduce approximately one part of arsenic per forty million (40,000,000) parts of bread: this may be regarded as an entirely negligible proportion. Adulteration in the county is by no means unduly prevalent, the percentage of adulteration being still well below the figure for England and Wales." Mr. White, in conclusion, says "it is time that, in the interest of infants and invalids, the indiscriminate dosing of milk with borax or horic acid was stopped."